

APRIL 5, 1954

Santa Fe's New Dome Cars . . . p. 58

RAILWAY AGE

The Standard Railroad WEEKLY for Almost a Century

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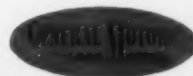
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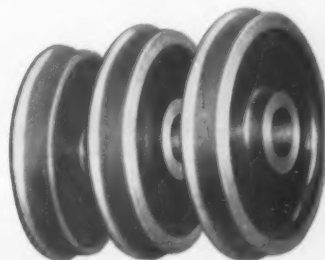
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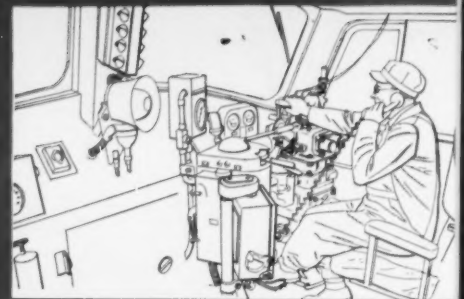




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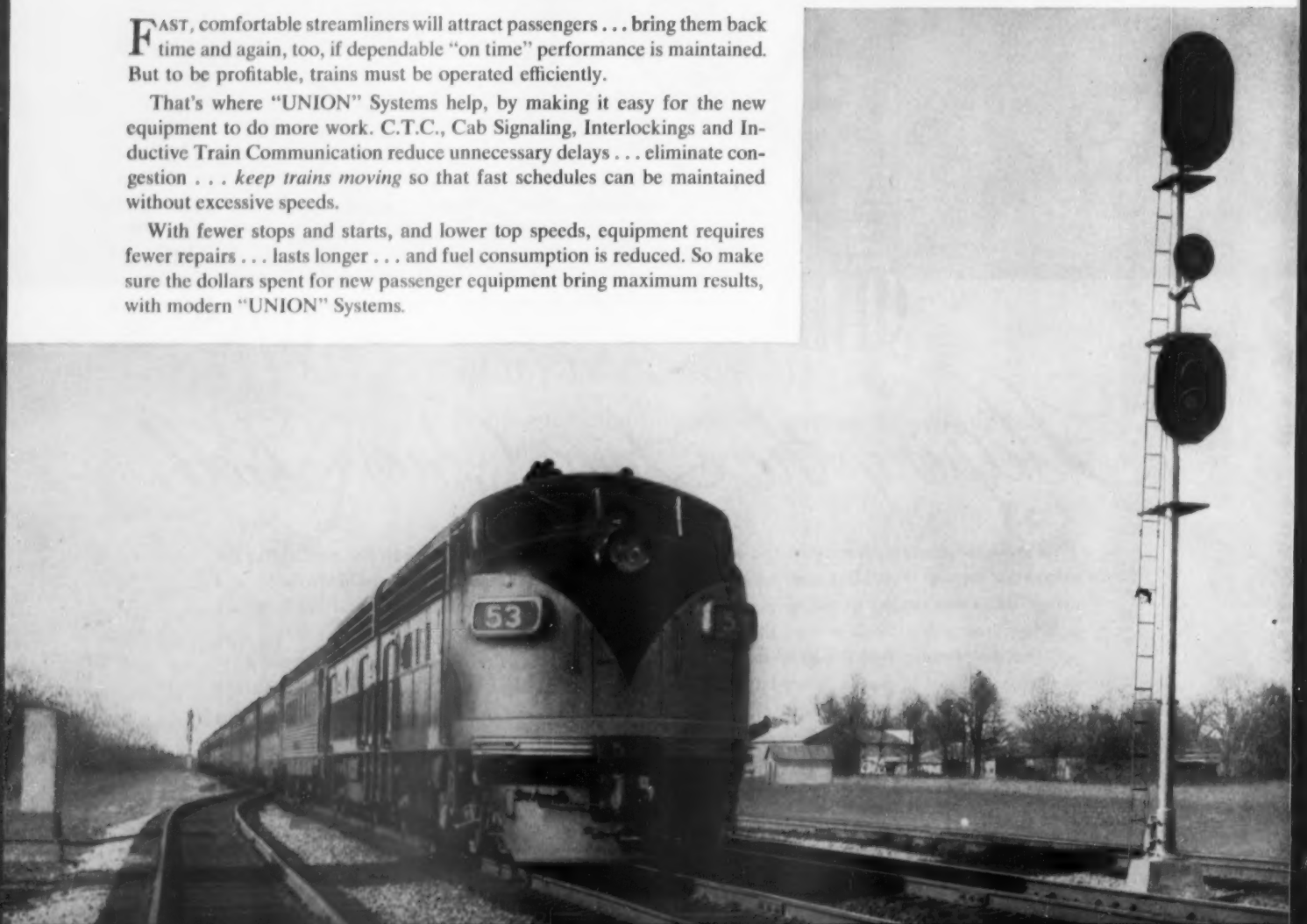
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April 5, 1954

Vol. 136, No. 14

Week at a Glance

Major changes in working rules have been proposed by the railroads to the emergency board which is considering the non-operating unions' demands for extensive (and expensive) "fringe benefits." 7

"It's time to fight"—as a man fights when his life is at stake—as the railroads' is," says Monon President Warren L. Brown. 13

FORUM: Railroads are militantly aiming at realistic rate-making, in contrast with thinking which has prevailed in the past, to attract and hold traffic "lost" to other carriers. 57

New full-length dome cars and deluxe coaches being built for the Santa Fe by the Budd Company feature luxurious accommodations with decorative motifs suggesting early Southwestern civilization. 58

Long-term equipment planning is badly needed, says Gustav Metzman, as freight car orders drop below the level required to replace retirements, thus threatening economies. 67

You can win \$100 in a new *Railway Age* contest for essays on inventory reduction and reduction of transportation in non-revenue service. Subscribers in all departments are invited to participate. 69

Heat treatment of frogs, switches, crossings and other special trackwork is being accomplished by Bethlehem's Steelton plant under controlled temperature and quality conditions. 70

Passenger service costs go down and standards of service go up as the New York Central runs a "vigorous and forward-looking program, aimed at . . . a more profitable passenger operation." 72

16' JACKSON MULTIPLE TIE TAMPERS

ARE OWNED AND OPERATED BY THE
Santa Fe



MFD. BY
**JACKSON
VIBRATORS
INC.**
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On the Santa Fe near
Virginia Point, Texas,
a surfacing operation
following steel relay
program.

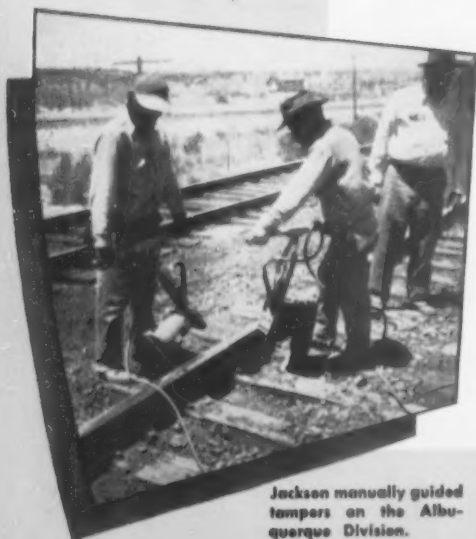
The favor JACKSON MULTIPLES have found with this outstandingly progressive railway system, as well as with more than 60 other leading railroads and contractors who use them in quantities, is specific evidence of the fact that JACKSON MULTIPLES offer the sure route to finest track at the lowest possible cost.

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Jackson manually guided
tamperers on the Albu-
querque Division.

Current Statistics

Operating revenues, one month	
1954	\$ 749,825,836
1953	863,041,651
Operating expenses, one month	
1954	\$ 626,806,095
1953	661,700,939
Taxes, one month	
1954	\$ 71,460,303
1953	102,920,396
Net railway operating income, one month	
1954	\$ 32,574,078
1953	80,069,353
Net income, estimated, one month	
1954	\$ 18,000,000
1953	57,000,000
Average price railroad stocks	
March 30, 1954	60.53
March 31, 1953	66.61
Carloadings, revenue freight	
Twelve weeks, 1954	7,239,475
Twelve weeks, 1953	8,167,454
Average daily freight car surplus	
Week ended March 27, 1954	133,080
Week ended March 28, 1953	70,979
Average daily freight car shortage	
Week ended March 27, 1954	158
Week ended March 28, 1953	2,002
Freight cars delivered	
February 1954	3,974
February 1953	7,780
Freight cars on order	
March 1, 1954	25,441
March 1, 1953	71,883
Average number railroad employees	
Mid-February 1954	1,086,142
Mid-February 1953	1,184,793

RAILWAY AGE IS A MEMBER OF ASSOCIATED BUSINESS PUBLICATIONS (A.B.P.) AND AUDIT BUREAU OF CIRCULATION (A. B. C.) AND IS INDEXED BY THE INDUSTRIAL ARTS INDEX AND BY THE ENGINEERING INDEX SERVICE. RAILWAY AGE INCORPORATES THE RAILWAY REVIEW, THE RAILROAD GAZETTE, AND THE RAILWAY AGE GAZETTE.

Departments

Benchmarks & Yardsticks	66
Current Publications	45
Equipment & Supplies	78
Figures of the Week	11
Financial	79
Forum	57
In Congress	10
Labor & Wages	7
Law & Regulation	10
Letter from Reader	68
Operations	12
Organizations	77
Public Relations	13
Railway Officers	85
Rates & Fares	15
Safety	15
Securities	84
Supply Trade	79
What's New in Products	51

Week at a Glance CONTINUED

A new kind of pricing—"differential charging"—is, according to E. V. Hill, the focus of the Eastern railroads' current rate revision program—designed to make charges reflect cost more than value of service. **75**

Railroads might spend up to \$18 billion for complete modernization of their physical plant—if regulators would let them earn that kind of money, C. L. Dearing said at the annual dinner of the Federation for Railway Progress. **76**

BRIEFS

Estimated net income of Class I railroads for February was \$21,500,000, compared with \$56,000,000 in February 1953; two months' estimated net, at \$40,000,000, was only a little over one-third the \$114,000,000 of net reported for 1953's first two months. Net railway operating income was \$44,417,884 for February and \$76,991,960 for two months, against \$77,797,463 for February 1953 and \$157,866,816 for January and February 1953.

The passenger-fare tax went down from 15 to 10 per cent on April 1. The reduction was among those included in the excise tax act which President Eisenhower signed March 31. Congressional action on the measure was completed the previous day.

An agreement calling for arbitration of the dispute over working hours was signed by the Order of Railway Conductors and the Pullman Company last week.

It's an ill wind, etc. Last week's tugboat strike in New York forced the Cunard Line to stop its trans-Atlantic liner "Queen Mary" at Halifax, N. S. So the Canadian National, the Central Vermont, the Boston & Maine, and the New Haven carried 761 passengers from Halifax to New York in three special all-Pullman trains; and took some 1,500 eastbound passengers back to Halifax in five trains.

This advertisement is one of a series currently running in national business magazines. We sponsor it in the belief that such a series will help make industry more aware of the outstanding record of railroad progress and achievement.

How all industry benefits
from progressive railroading

Today they're giving freight a safer, smoother ride . . .

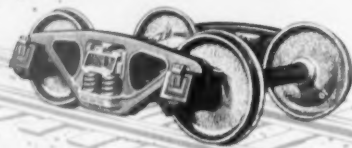
In a persistent effort to make good service even better, railroads have turned the spotlight on the causes and cures of lading damage. Lest someone get the impression that freight shipments are risky, here are some facts about an unusual record of achievement.

First, the number of claims has gone steadily down; total in 1952 was 39% less than five years ago. In terms of dollars, current loss is *less than one-fiftieth of one cent for each mile a ton is carried.*

The irreducible minimum hasn't been reached yet, of course. Railroads are working with shippers on better loading methods. They're developing impact-free classification systems; investing in better cars that ride smoothly at high speeds. For example, the modern Ride-Control® Truck, developed by American Steel Foundries, rides up to *fifty times more smoothly* than the ordinary trucks of ten years ago!

But, over-all railroad progress is not traceable to any isolated development or to any single railroad. Continuous improvements, jointly made by railroads and suppliers alike, are making today's freight service better . . . and a bigger value than ever before.

Freight is hauled smoothly and safely on the modern Ride-Control Truck. This truck was the first to permit passenger-train speeds for freight trains . . . at freight train costs.



American Steel Foundries

World's largest producers of railroad running gear

Executive Offices: Wrigley Building, Chicago 11

Another plus of modern railroading

Industry benefits from the efficiency of today's modern car pool. Average ton-miles hauled per train hour shot up 74% from the 1936-1940 period!



Mechanical principles of the Ride-Control Truck are now built into the "Ride-Control Package" — which economically makes older cars suitable for high speeds, unrestricted use.

THESE ARE THE 15 NON-OPERATING UNIONS . . .

Railway Employees' Department, American Federation of Labor
 International Association of Machinists
 International Brotherhood of Boilermakers, Iron Ship Builders, Blacksmiths, Forgers & Helpers
 Sheet Metal Workers International Association
 International Brotherhood of Electrical Workers
 Brotherhood of Railway Carmen of America
 International Brotherhood of Firemen, Oilers, Helpers, Roundhouse & Railway Shop Workers
 Brotherhood of Railway & Steamship Clerks, Freight Handlers, Express & Station Employees
 Order of Railway Telegraphers
 Brotherhood of Railroad Signalmen of America
 Brotherhood of Maintenance of Way Employees
 National Organization of Masters, Mates & Pilots of America
 National Marine Engineers' Beneficial Association
 International Longshoremen's Association
 Hotel & Restaurant Employees & Bartenders International Union

THEY ARE SEEKING . . .

- (1) Life insurance equal to one year's pay, with a minimum of \$3,500.
- (2) All hospital, medical and surgical care for employees and all dependents.
- (3) Paid vacations of from one to four weeks, beginning with one week for one year's service and increasing to four weeks for 15 years' service.
- (4) Seven paid holidays, with triple pay for any work on such days.
- (5) Time and one-half for work done on Sundays.
- (6) Unrestricted pass privileges for all employees and all their dependents on any passenger train on any railroad after five years of service.

And the Railroads Have Proposed . . .

Changes in the handling of jurisdictional disputes and of grievances, in methods of filling temporary vacancies, and in working rules, plus "Trainmen package" settlement

Major changes in the pattern of relationships between the railroads and the 15 unions representing their non-operating employees have been proposed by the 19 carrier spokesmen who have appeared before the Presidential emergency fact-finding board which is considering the unions' demands, summarized above, for health and welfare benefits, additional vacations, unlimited free transportation, and other fringe benefits.

The carriers began their testimony January 19 when Howard Neitzert, their chief counsel, told the board that the demands, which would cover an estimated one million workers, would, if granted, cost almost double the railroad industry's expected 1954 net.

The concluding testimony, offered March 25 by Daniel P. Loomis, chairman, Association of Western Railways, urged acceptance of the "pattern" settlement already accepted by organizations representing conductors, trainmen, firemen, a majority of

switchmen and other smaller groups, totaling about 26 per cent of all railroad employees. [The pattern—commonly called the "Trainmen package," because of its initial acceptance last December by the Brotherhood of Railroad Trainmen—provides: a five-cent-an-hour increase to be applied along with the 13 cent-an-hour increase already awarded under the escalator clause of the former agreement. It also provides for a third week of vacation after 15 years of service.]

Here is a summary of proposals advanced, and testimony offered, by carrier representatives:

Jurisdictional Disputes—A rule, to be incorporated into working agreements, to provide that jurisdictional disputes be submitted to voluntary arbitration, and that the finding of the arbitration board be binding on both the carrier and employee organizations involved, was suggested by Fred A. Burroughs, assistant vice-president, Southern.

Both the railroad and its employees would be protected from work stoppages by a provision of the rule, that the craft to which the work was originally assigned would continue to perform that work until settlement was effected by the arbitration board. An award by the National Railroad Adjustment Board isn't a solution in such cases, Mr. Burroughs said, because the board, in the past, has made contradictory decisions. Principles of this proposed rule, he added, have been applied successfully by the American Federation of Labor in other industries.

Temporary Vacancies—Four ways to help solve the problem of supplying additional employees to fill temporary vacancies were suggested by H. V. Bordwell, carrier member of the NRAB, who said the carriers would like:

- (1) To establish and regulate lists of extra employees to be available for service when needed;
- (2) To call on furloughed employees willing to work in extra or relief positions to handle temporary assignments;
- (3) To fill temporary vacancies without calling on regular employees and upsetting regular work assignments; and
- (4) To be allowed to pay extra or

unassigned employees on the basis of actual time worked with a minimum of four hours, instead of paying them for a full eight hours, as is now generally required.

Mr. Bordwell said these problems would actually make work available to more qualified employees; would not affect seniority rights; would permit greater utilization of men trained but not needed for full-time duty; and would reduce the confusion and inconvenience which occurs under present rules.

Grievance Limits—A time limit should be set for the handling of claims and grievances of non-operating unions, Frank K. Day, assistant general manager, Norfolk & Western, told the emergency board. Pointing out that the principles of the proposal were generally accepted by many non-operating organizations, and are incorporated into agreements with several operating unions, he explained that, with no time limit in effect, retroactive claims may be filed against a railroad at any time.

"It is quite apparent," he declared, "that by failure of authors of the Railway Labor Act to include any periods of limitation for presentation of claims, carriers have been denied the benefit of existing federal and state statutes of limitation, without substituting for them any other protection whatsoever against stale claims involving large retroactive payments."

"Outlying" Mechanics—Another proposal, advanced by J. T. Adams, general master mechanic, Louisville & Nashville, was that railroad mechanics located at outlying points be required to perform duties of other crafts when workers of those crafts are not on duty. Many railroads, he pointed out,

have such agreements; they permit union mechanics, within limits of their capabilities, to do work normally done by other classes of workers when there is not sufficient work to warrant employment of men of those other crafts.

Presently, he said, it is frequently necessary to call a worker who is not on duty and pay him for four hours work to do a job which takes only a few minutes. The centralized character of modern diesel locomotive maintenance has lessened the need for workers of all crafts to be located at outlying points, he said, adding that present working rules are based on a 33-year-old classification of work for each craft "now often unrealistic and unduly restrictive."

Rules Changes — Four rules changes, which would provide for more economical and efficient operation while not jeopardizing in any way rights of non-operating employees, were presented to the board for recommendation by Claude P. King, vice-president, personnel, St. Louis-San Francisco. They were:

(1) Consolidate positions or extend jurisdiction of positions within the same craft and seniority district when conditions warrant;

(2) Designate the class of employees to perform new work when new methods or machines are installed which can do jobs formerly done by two classes of employees;

(3) Assign communications work to clerks, and clerical work to station agents and telegraphers, to fill out the day of workers in either craft; and

(4) Allow supervisory employees to perform the type of work they supervise when necessary to their duties.

Historically, Mr. King pointed out, carriers have had these rights, but

through the years decisions of the NRAB have resulted in more and more restriction of them. "Present restrictions serve no good purpose. They merely encourage perpetuation of unsound, inefficient and wasteful practices and interfere with carriers' efforts to take advantage of technological advances," he said.

Free Transportation — No other industry grants its employees the equivalent of the benefit railroad employees get from their present free transportation privilege, W. W. Patchell, vice-president, Pennsylvania, testified. The burden of carrying more than six million persons eligible for free transportation under the unions' demand would fall unequally upon different roads, he said; nine roads would have to supply 68 per cent of the service. A department store, he declared, would not grant its employees the privilege of buying merchandise at a discount in a competitor's store.

Health, Welfare Benefits—Railroad employees already enjoy more liberal health and welfare benefits than workers in other industries, and it would be unfair to their employers to grant them more, L. W. Horning, vice-president, New York Central, told the board. Under the Railroad Retirement Act and the Railroad Unemployment Insurance Act, he said, workers receive life insurance, pension, unemployment insurance and sickness and accident benefits "infinitely more valuable than benefits afforded non-railroad workers by analogous legislation."

"We pay nearly \$300 million a year — \$237 per employee or 5.5 per cent of our total payroll—in support of these benefits. Our burden for legally required social insurance is much heavier than that placed upon other employers. We have largely adopted, as the result of congressional action, patterns of social insurance which were desired and actively sponsored by our employees. The employees have chosen the forms of insurance they desire and have imposed a heavy burden in doing so."

He pointed out that there is no need for the carriers to assume the burden of health insurance for employees, because employees have enjoyed wage increases which have more than kept up with increased medical costs. "Most railroad workers have already met their needs for health protection by membership in group insurance plans . . ."

Sunday Work—Premium wages for providing necessary transportation services on Sunday would penalize railroads over \$65 million a year, said J. E. Wolfe, assistant vice-president, Burlington. He advised the board that a survey of other continuous-service industries showed that the "overwhelming practice" is to compensate employees at straight-time rates for regularly scheduled Sunday work. Regarding the union proposal that employees get triple pay for work performed on holidays, Mr. Wolfe com-



BUILT BY SHOP APPRENTICES, this model railroad has been installed in the Santa Fe's shops at San Bernardino, Cal.

mented that this would result in an unjustified wage increase that would add over \$25 million a year to railroad costs.

Paid Vacations—Extended paid vacations would add \$115 million a year to operating costs, Frank J. Goebel, vice-president, Baltimore & Ohio, testified. Citing surveys compiled by the Bureau of Labor Statistics, the National Industrial Conference Board and the Bureau of National Affairs, he said that "only an insignificant percentage of union agreements make any provision for a vacation of four weeks."

He pointed out that railroads generally have a higher percentage of long-service men who are eligible for longer vacations. "The railroads have offered a third week's vacation after 15 years service to non-operating employees as part of a complete settlement of all their fringe benefit proposals, including anticipated wage demands," he stated. "If non-operating employees are entitled to a third week of vacation, they are entitled to it only as part of this package settlement. It cannot be justified independently as the correction of a sub-standard vacation in the railroad industry because none exists."

Earlier Testimony—In summary, here are other highlights of the carriers' case:

"The nation's railroads have lagged far behind most other industries in growth of business volume in recent years, but their employees are among the highest paid in industry today."—*Dr. Jules Backman, professor of economics, New York University.*

"Fringe benefits demanded by non-operating unions would force the carriers' already dangerously low earnings to a bare subsistence level."—*J. Elmer Monroe, vice-president, Association of American Railroads.*

"The narrowing margin between income and outgo is the most serious problem facing the railroad industry today. We can afford to pay higher labor costs per employee only if we reduce the number of employees on our payroll."—*J. W. Severs, vice-president, finance, Milwaukee.*

"Railroad employees are endangering their own interests. The huge additional cost of these demands, in the face of declining traffic and revenues, would put railroads at a competitive disadvantage with other forms of transportation and would mean the loss of jobs to many."—*W. S. Hackworth, president, Nashville, Chattanooga & St. Louis.*

The large economies [of diesel operation] that have been obtainable in recent years . . . are no longer available. We are piling up added maintenance liabilities on these locomotives as they become older—and even more important, large sums of money are still owed on the installment buying of the locomotives themselves. We are failing to participate in the traffic growth of the country. . . . Increased productivity has been the result of expenditures made for

improvements to the property and all the benefits—and more, too—have been passed on to employees in increased wages and improved working conditions. . . . There is a difference in conditions going into the traffic decline this year as compared with the traffic decline in the early thirties. . . . A much larger net income was obtaining then than now. Employees agreed to a substantial wage reduction and lay-off days then. Now they are seeking wage increases. . . . I emphasize the real seriousness of our plight as reflected in operating results for the first two months of this year."—*J. M. Symes, executive vice-president, Pennsylvania.*

Opening testimony was presented by William White, president, New York Central; Robert S. Macfarlane, president, Northern Pacific, and John J. Sullivan, manager personnel, Southern Pacific. Mr. Sullivan's testimony was summarized in the March 8 *Railway Age*, page 11; that of Mr. White and Mr. Macfarlane in the March 1 issue, page 8.

Engineers Agree to Arbitrate Wage Demands

The Brotherhood of Locomotive Engineers has agreed to submit its demands for a 30 per cent wage increase to a six-man arbitration board.

This announcement was made by the National Mediation Board just a few hours after last week's *Railway Age* went to press.

The board will consist of two members to be named by railroad management; two by the brotherhood; and two neutral members already agreed upon by both union and carrier representatives. These neutral members are Archibald Cox, professor of law, Harvard University, and Richard A. Les-

JUDGE RULES AGAINST NEW UNION SHOP TRIAL

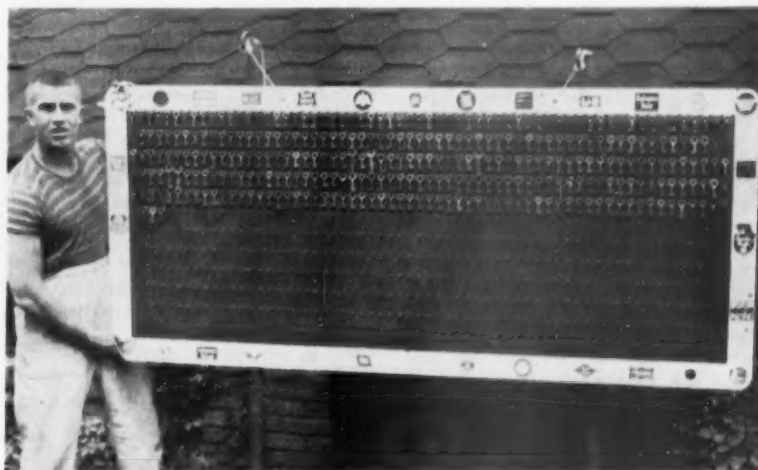
Motion for a new trial of the Sandsberry vs. Santa Fe union shop case in the 108th district court at Amarillo, Tex., has been denied by Judge E. C. Nelson.

The motion was filed by attorneys for 16 non-operating unions which have been permanently enjoined from negotiating a union shop contract with the Santa Fe (*Railway Age*, February 15, page 7), and also forbidden to resort to a strike to coerce the road into signing such a contract.

It is presumed the unions' next step will be to take the case to the state's Seventh Court of Civil Appeals—an action they have previously indicated they would take should Judge Nelson's decision on the motion for a new trial prove unfavorable to them. The case involves a clash between union shop provisions of the (U.S.) Railway Labor Act and the "right-to-work" provisions of Texas laws.

ter, professor of economics and chairman of the labor relations section, Princeton University. The board will begin hearings in Chicago April 26.

As mentioned briefly in last week's issue, Francis A. O'Neill, Jr., Leverett Edwards and G. S. MacSwan, chairman, member and mediator, respectively, of the NMB, conducted negotiations leading up to signing of the arbitration agreement. Guy L. Brown, grand chief engineer, Frank Davisson, assistant grand chief engineer, J. M. Clontz and J. R. Birrell conducted negotiations for the union. Negotiating for the carriers were chairmen of the three regional conference committees



OVER 300 SWITCHKEYS from U. S. and Canadian railroads are included in the collection of J. J. O'Neil, 87 Industry st., Pittsburgh, engineman on the Pennsylvania's Pittsburgh di-

vision. Mr. O'Neil writes *Railway Age* that he would like to add to his collection; he is particularly interested in keys from absorbed or abandoned railroads.



C&O PASSENGERS TELL WHAT THEY WANT.—The Chesapeake & Ohio has formed a "consumer panel," selecting a group of its riders to tell what they like and dislike about its passenger service, to get ideas for improving that service. Here Jack Metz (standing), assistant passenger traffic manager—sales, reads a C&O dining car menu to three of nine panel members at Charleston, W. Va. The C&O plans to hold similar sessions in other key on-line cities.

—J. W. Oram, assistant vice-president (operating—personnel), Pennsylvania; Daniel P. Loomis, chairman, Associa-

tion of Western Railways; and W. S. Baker, assistant vice-president, Atlantic Coast Line.

In Congress

House Group Hits ICC Bureau Merger

Appropriations committee expresses disapproval of consolidations which would join safety and locomotive inspection with other functions

The House Committee on Appropriations has indicated its disapproval of the Interstate Commerce Commission's plan to merge its bureaus of locomotive inspection, safety and service.

In its report on the independent offices appropriation bill which carries commission funds for the fiscal year ending June 30, 1955, the committee said it "does not agree that railroad safety and locomotive inspection work should be consolidated with other activities" of the commission. The three-bureau merger, as now set up by the commission, is scheduled to become effective May 1. (*Railway Age*, March 29, page 6.)

Funds Earmarked — Also the committee refused to go along with President Eisenhower's budget recommendation that the commission's appropriation be a lump sum without specific allocations for work of the Bureaus of Safety and Locomotive Inspection. The bill (H.R. 8583) carries for the commission the \$11.5 million total which the budget proposed, but it is a two-item appropriation—\$9,816,000 for the commission's "general expenses" and \$1,684,000 for "railroad safety and locomotive inspection."

Formerly those two functions were provided for in separate items. Of the present proposal, the committee's report had this to say: "The committee believes that in consolidating the two

appropriations into one item it will be possible to obtain more efficient performance in connection with this most important safety and inspection work, as the inspection staff can be consolidated administratively and one inspector can examine for both types of activity at one time."

Nevertheless, the committee went on to "direct" that no reduction be made in the number of inspectors. And it also said: "Activities of the Bureau of Service are specifically excluded from this appropriation as are all other activities which would in any way lessen the amount of railroad inspection work as compared with 1954."

Defense Transport Work — Normal activities of the Bureau of Service would, of course, be financed out of the appropriation for the commission's "general expenses." The bill also proposes to appropriate \$170,000 to enable the commissioner, who is responsible for supervision of the Bureau of Service, to carry on defense transport activities which have been the work of the Defense Transport Administration. The President's budget proposed \$275,000 for this work.

"The authority for this activity will expire June 30, 1955, and the amount provided will enable the commissioner to continue the most essential work and liquidate the activity by that date," the committee said.

Law & Regulation

Extreme Measures Needed For Sound Competition

Because of the public's failure to demand equal government regulation of the various forms of transportation, extreme measures are necessary to insure sound competition in the industry, Herbert E. Bixler, assistant to president of the Boston & Maine, said in Albany, N.Y., on March 15.

Mr. Bixler, addressing a group of railroad officers taking a special community relations course at the Albany evening division of Russell Sage College (the course is sponsored by the recently formed Railroad Community Committee of the Capital District), recommended: "Either remove all economic—but not safety—regulation from the industry, or require all forms of transportation to perform the jobs for which they are best fitted."

"While removal of all regulation is an admittedly drastic way to correct the present chaotic situation," he emphasized, "the keen competition of today has removed the dangers of monopoly which existed at the outset of regulation in the 1880's. The public would have to pay no more attention to the problems of transportation that it does, for example, to the problems of the production of salt, a necessary commodity whose production is entirely taken care of by the normal workings of competition and the law of supply and demand."

More Time for Filings On ICC Fee Schedule

Interested parties now have until May 15 to file presentations with the ICC on the proposed schedule of fees which would apply to various applications filed with the commission.

When the proposed schedule was announced, it was estimated that its adoption would cost the carriers about \$1,750,000 annually (*Railway Age*, March 1, page 8). The original deadline for the filing of statements was March 31.

Sughrue Addresses New England Board

Regulatory bodies should give as much weight to the financial health of a railroad as the railroad does to furnishing adequate service at fair rates, T. G. Sughrue, president of the Boston & Maine, said in Boston on March 25.

Mr. Sughrue, addressing the New England Shippers Advisory Board meeting, added: "It must be perfectly clear to you that when a railroad incurs a loss from passenger train operations of several million dollars a year, as has been true of the B&M

for a long time, there is only one place to get that money and that is out of the net dollar from freight train service. In the long run this must mean higher freight rates."

The B&M chief executive told his audience that it, as shippers and receivers of freight, "should support the bill now before Congress which proposes to give railroads the right of

appeal to the Interstate Commerce Commission from adverse decisions of state regulatory bodies in cases of discontinuance of non-profitable passenger trains. It is my belief that if this right were granted, the ICC would not be influenced by political pressure or by objections from local communities which are generally influenced by community pride."

Common Carriers Must Be Preserved

Commissioner Arpaia of ICC advocates more control over private and exempt transportation and leasing of trucks

Interstate Commerce Commissioner Anthony F. Arpaia believes the preservation of common carriers, "the main supports of our transportation structure," requires legislation to provide better controls over private carriers, exempt-commodity carriers and trip-leasing of trucks.

CANADA TO STUDY HIGHWAY REGULATION

A conference between representatives of the Canadian federal government and the governments of the Dominion's 10 provinces has been scheduled for this month at Ottawa, with the object of obtaining some degree of agreement on control of highway transportation.

Under a decision recently rendered by the British Privy Council (London, England) the legal authority of the Canadian federal government to regulate interprovincial and international highway operations has, finally, been clearly established. Apparently, however, federal officials feel that attempted exercise of such control, would do more harm than good, in view of the provinces' historic reluctance to give up their local regulatory powers.

As an alternative, therefore, Lionel Chevrier, federal transport minister, intends to seek an interprovincial agreement which would result in uniform treatment for highway operators, with the federal government limiting its regulation to international traffic. At present, all provinces regulate safety and size and weight of motor vehicles, but such matters as rates and entry of new carriers are controlled in some provinces and not in others.

The subject reached the Privy Council on an appeal by a United States bus company in a dispute with the province of New Brunswick. The bus company contended that its international and interprovincial operations were not subject to provincial regulation; the province, that they were subject to such local control.

The commissioner expressed these views in a March 26 address in Washington, D.C., at a luncheon meeting which marked the close of the Eighth Rail Transportation Institute conducted by the American University.

Twenty-four railroaders from American roads were among the 37 students who completed the institute's course. Certificates were presented by the university's president, H. R. Anderson, and the class address was delivered by John B. Palmer, general agent, Texas & Pacific, Chicago.

In referring to private carriers, Commissioner Arpaia emphasized that he was concerned only with what he called "phony" private carriers. "My thesis," he said, "is that true common carriers, whether by rail, highway or water, must bear the real burden of our nation's transportation requirements; that the fringe operators, private transportation and its alter ego, contract carriage, are only flying buttresses."

"If we don't preserve the main supports of our transportation structure, it is bound to collapse," Commissioner Arpaia also said. He added that public transportation is suffering an erosion of traffic and revenues, and that if this process continues, "the effects on shippers and the nation can be near disastrous."

Undermining — The erosion, the commissioner continued, is due "largely to the undermining of common-carrier transportation through competition of private transport, lawful or deceptive, and the threat of such competition"; and "the line between regulated and unregulated transportation is becoming fuzzier and fuzzier."

Mr. Arpaia said three loopholes in present regulatory laws require attention of Congress. He listed first the lack of proper delineation of the place and status of the private carrier. Second on his list was trip-leasing of trucks, where the commission "has been attempting to plug the hole." Third was exempt transportation, i.e., carriers operating with benefit of the so-called agricultural exemption.

Hodge-Podge — "The linkage between exempt transportation, leasing, and private transportation is making

a veritable hodge-podge out of our transportation system," the commissioner warned. He proceeded to advise that "if there were now a united front among common carriers, the job of effectively placing the problem and possible solutions before Congress would be vastly simplified."

Among other subjects discussed by Mr. Arpaia was trailer-on-flat-car service. After saying he has tried to follow every word which has been written on this subject, he added:

"I don't propose to discuss the merits. All I wish to say is that much of the discussion lacks a rational, constructive tone. It is obvious that problems will never be analyzed, much less solved, until the underbrush of rancor, suspicion, and resistance is cleared out. I found very little in what I read about improving service to the public. Yet a recent sample poll of a number of shippers indicates, according to *Railway Age*, that 83 per cent of those questioned favored this so-called 'marriage of convenience' between railroads and motor carriers."

Figures of the Week

ICC Bureau Compares Rate and Price Indices

The Interstate Commerce Commission's Bureau of Transport Economics and Statistics has developed indices of freight rates for commodity groups which are components of the Labor Bureau of Statistics' wholesale price index.

The index tables, prepared at the request of the BLS, were published in the ICC bureau's "Monthly Comment." Based on 1950 as 100, the indices showed generally that, from 1947 through 1952, freight rates increased more than wholesale prices. The respective 1952 indices on the "all commodities" basis were 109 and 108.

Timing's Effect — After noting this showing, however, the ICC bureau hastened to add that "it would be quite erroneous to assume or to infer that, on the whole, increases in freight rates have exceeded those in wholesale prices."

"As a matter of fact," the bureau continued, "the result shown for the years in question is essentially a matter of timing of the respective increases, and does not tell the whole story. . . ."

"Whereas a large portion of the effect of the 1940-52 inflation on wholesale prices occurred prior to 1946, the general freight rate increases were confined to the years after 1945. . . . It is estimated that the 1946 freight rate index for all commodities, with 1950 as 100, would be 68. . . . This . . . may be assumed to approximate the freight rate index for 1940.

"The wholesale price index of 108

for all commodities in 1952 with 1950 as 100 is approximately 116 per cent higher than the corresponding index for 1940, whereas the freight rate index (109) for the later year for all commodities is about 60 per cent over that of the year 1940, again using 1950 as the base year."

Freight Car Loadings

Loadings of revenue freight in the week ended March 27 totaled 601,426 cars, the Association of American Railroads announced on April 1. This was a decrease of 8,533 cars, or 1.4 per cent, compared with the previous week; a decrease of 113,907 cars, or 15.9 per cent, compared with the corresponding week last year; and a decrease of 124,061 cars, or 17.1 per

ICC NOT UP TO JOB, SAYS TIME MAGAZINE

The Interstate Commerce Commission, hamstrung by its own bureaucratic tradition, governed by an outmoded law and staffed by overage personnel, is not up to the job of regulating the country's railroads, *Time*, weekly news magazine, says in its April 5 issue. Of all slow-moving detail-bound agencies in Washington's bureaucracy, *Time* added, the ICC probably is the champion, having cost railroads over \$500 million dollars since 1945 because of delays in settling rate cases.

"Employees, steeped by long service in their own bureaucratic tradition, are buried in paperwork and time-wasting procedures," *Time* says. "They have been doing the same thing the same way for so long they resist efforts at a speedup. A 1952 analysis showed that 27.5 per cent of the staff were 60 or older and 37.8 per cent were between 50 and 60." *Time* quoted a "veteran" ICC staff member as saying "Nobody ever retires from the ICC. Departure is only by death."

One of the original purposes of the commission, the magazine points out, was to protect the public from monopolistic practices. Although keen competition from cars, trucks and airplanes has drastically reduced monopoly dangers, the commission, instead of withering away, has devoted much of its time to protecting railroads from themselves. Railroads, *Time* says, would rather do away with such paternalism, let free competition take its course in controlling rates, and have the ICC concentrate on preventing regional discrimination, stopping cutthroat competition and guarding against "shenanigans" in railroad management.

What the commission needs, *Time* concludes, is not more employees, but up-to-date laws and rules, fresh ideas and an overhaul of its administrative machinery.

cent, compared with the equivalent 1952 week.

Loadings of revenue freight for the week ended March 20 totaled 609,959 cars; the summary for that week, compiled by the Car Service Division, A. A. R., follows:

REVENUE FREIGHT CAR LOADINGS			
For the week ended Saturday, March 20			
District	1954	1953	1952
Eastern	108,692	128,454	132,618
Allegheny	113,130	147,434	151,918
Pocahontas	43,324	49,532	56,147
Southern	120,856	130,409	133,507
Northwestern	68,831	75,754	74,047
Central Western	100,949	113,997	111,694
Southwestern	54,177	53,485	69,078
Total Western Districts	223,957	245,236	245,819
Total All Roads	609,959	701,065	720,009
Commodities:			
Grain and grain products	41,159	43,082	45,354
Livestock	7,273	6,097	7,136
Coal	98,040	109,830	131,775
Coke	8,755	14,972	15,596
Forest products	39,241	44,658	44,006
Ore	14,888	19,687	20,483
Merchandise l.c.l.	66,182	72,197	75,480
Miscellaneous	334,421	390,542	380,179
March 20	609,959	701,065	720,009
March 13	609,883	700,183	708,975
March 6	590,567	684,864	713,112
February 27	595,031	668,654	755,844
February 20	618,623	689,430	683,551
Cumulative total, 12 weeks	7,239,475	8,167,454	8,614,905

In Canada.—Carloadings for the seven-day period ended March 14 totaled 66,582 cars, compared with 65,708 cars for the previous seven-day period, according to the Dominion Bureau of Statistics.

	Revenue Cars Loaded	Total Cars Rec'd from Connections
Totals for Canada:		
March 14, 1954	66,582	27,044
March 14, 1953	76,035	32,814
Cumulative Totals:		
March 14, 1954	671,341	293,979
March 14, 1953	746,511	324,911

Operations

Service, Rates, LCL Keys, Says Allegheny Board

Deficiencies and improvements in railroad service received a thorough airing at the 70th meeting of the Allegheny Regional Advisory Board in Pittsburgh, March 25. The board reaffirmed its desire for complete repeal of taxes on transportation of property and passengers; and adopted resolutions calling on railroads to acquire more "Damage Free" cars, and to take positive action to improve LCL service simultaneously with proposed new volume rates on LCL in Official Territory.

Guest speaker at the luncheon, Arthur P. Hall, vice-president, public relations, Aluminum Company of America, advised shippers and railroad men to remember that, whatever their particular job, they are also public relations men, because their companies are judged for better or worse through their own actions.

General officers elected for the coming year are: Chairman, J. F. Davis,

traffic manager, Babcock & Wilcox Co., Beaver Falls, Pa.; vice-chairman, Walter Schulten, vice-president, Pittsburgh-Consolidation Coal Company, Pittsburgh; chairman—executive committee, Fred Bennett, general traffic manager, Sharon Steel Company, Sharon, Pa.; vice-chairman—executive committee, Arthur C. Roy, general traffic manager, Pittsburgh Glass Sand Corporation, Pittsburgh; and general secretary, C. M. Donley, manager, Chas. Donley & Associates, Pittsburgh.

Numerous complaints on railroad service were made by the Car Efficiency Committee. Chairman A. C. Deimel, general traffic manager, Mullins Manufacturing Corporation, Warren, Ohio, felt service and dependability were crucial. "It doesn't have to be the fastest schedule in the world, but if you make the schedule you will get a lot of business," he advised railroad men. "Carriers have a lot to do to prove they are dependable." The committee also criticized reduction of car repair activities, suggesting that if railroads would budget their funds for car repairs 40 hours a week, 52 weeks a year, "we'd all be better off."

Mr. Deimel said little progress had been made on the clean car program in 25 years of talking about it. His committee asked local officers of the AAR Car Service Division to make a one-month survey, and then report how many cars railroads in the territory are cleaning, and at what points.

Apparent conflict with a survey made by the Car Efficiency Committee was revealed in the LCL Committee report, which said its questionnaire to shippers brought forth a majority of replies that LCL service is "good." Chairman Donley said the most promising recent railroad development for recovering lost LCL traffic is the current Official Territory proposal for "incentive" LCL volume rates based on a minimum of 5,000 lb. But he warned that big volume could only be regained if these rates were accompanied by improvements in service.

A progress report on work of the LCL Research Group of the AAR was delivered by Charles F. Yardley, assistant director, who said: "It appears the long-awaited 5,000-lb volume rates will be introduced on or about June 1. Improved service depends on two things—how much basic freight develops and how well railroads are prepared to take advantage of that which does develop."

Statistics gathered from the group's first questionnaire reveal that freight stations operating five days a week unload on time 80 per cent of cars received on working days—or 60 per cent of all cars received. Six-day stations have the same average record. Seven-day stations average 70 per cent on-time unloading. "Apparently the general practice of staggering working shifts at six-day stations is the cause of no improved showing on average daily production over five-day stations," Mr. Yardley concluded.

Shippers must often route LCL

"blind," complained Floyd Russell, traffic manager, General Fireproofing Company, Youngstown, because railroads do not give them up to date information on car line schedules. Mr. Yardley answered that most eastern railroads issue printed schedules, but supplements are infrequent. He felt railroads themselves could profitably use information from advertised schedules of other roads in planning overhead cars, thus improving service.

Boston to Be Key Point For NYC T-O-F-C Operation

Boston will be a key point for handling rail-trailer freight when the New York Central begins hauling highway trailers into the New England area. NYC officers, after an inspection tour of the road's facilities in the Boston area, announced selection of the Beacon Park freight yards of the affiliated Boston & Albany as the best site for the proposed terminal.

"The strategic location of the B&A provides a natural link connecting the

Bay area with the manufacturing centers of Worcester and Springfield and with the Central's main line at Albany.

with direct rail connections to the midwest," Stephen T. Keiley, B&A general superintendent, pointed out.

Public Relations

"It's Time We Started to Fight!"

... the way a man fights when he realizes his life is at stake," Warren Brown tells Pacific Northwest Board—Rails' plight a "tragic struggle for survival," he says

Strong words have come from Warren W. Brown, president of the Monon. Speaking at the 88th regular meeting of the Pacific Northwest Advisory Board at Portland, Ore., he said:

"American industry is working for greater capacity and a greater world. It is vibrant and strong, it feels its responsibilities and sees clearly its

goals. The railway industry is trying desperately hard to follow suit. The fact that it has not realized the degree of success achieved by American industry means that there is a basic difference in operation. The difference is that the American railroads are not fighting a battle for growth and prosperity. They are engaged in a tragic struggle for survival. To compound the tragedy, they are not completely aware that it is a fight for survival."

Speaking of "the dirty reality of the effect of public transportation policy," he cited "the several elements which threaten our vitality":

"The Interstate Commerce Commerce Commission . . . with which, essentially, no one has any quarrel. I think it is an admirable group and I feel that it has done a magnificent job in interpreting and administering the responsibilities with which it is charged. But the acts under which it operates are as decadent as the wheels of the horse-drawn wagons that were still rolling in our city streets when the legislation was created. As long as the transportation acts remain as they are, we cannot look for any results of the commission's up-to-date or imaginative thinking, because results of modern thinking would contravene principles of regulation as they are supposed to make it operate. Obviously these gentlemen cannot betray a trust they have taken an oath to uphold. I am not of a legal mind, but I doubt that there is any set of rules in existence today which are as pure in their original form as are our transport rules.

"The State commissions . . . where they carry the words 'public service' to an absolute zenith . . . Zealous safeguards of public service who ignore public interest.

"The Post Office Department . . . a looming threat to us every day. To the question of postal deficit, long a political football, comes now a new approach. The postal authorities are making increasing use of trucks and airlines for what are laughingly termed 'savings.' Having dodged the reality of deficit, the department now dodges the reality of public subsidy.

"The trucking industry . . . has
(Continued on page 15)



THE 44-TON DIESEL and one of the two Shay locomotives it replaced.

DIESEL TO PAY OUT IN SIX YEARS

The Camino, Placerville & Lake Tahoe Railway, in California, expects to pay for its new General Electric 44-ton diesel-electric switcher within six years on the \$12,000 in operating costs it will save each year over two 75-ton steamers, formerly used.

Present work of the railroad consists of hauling box cars of kiln-dried pine and fir from the Camino mill of the Michigan-California Lumber Mill to

the main line of the Southern Pacific at Placerville, Cal. On the return trip there is a four per cent grade for half a mile, and a continuous steady grade of 3¼ per cent for the rest of the 8-mile line. In spite of its lighter weight, the 44-tonner, equipped with 20-mph gearing, does all work done in the past by both of the Shays it replaced. In addition, it switches more rapidly and requires no water stops.

**Paying His Own Way
and Still Going Strong!**

By Hungerford

The idea for this cartoon, drawn by Mr. Hungerford, won a prize for

Mr. CARLETON P. ADAMS in the Edgewater Cartoon Idea Contest, held during the R.S.M.A. Convention at Atlantic City in June 1953.

We will be glad to send you enlarged copies of this Hungerford cartoon (without advertising copy) for posting on your office and shop bulletin boards, or a cut for your company magazine, at cost.



**PITTSBURGH,
PENNA.**

**EDGEWATER
STEEL
COMPANY**



**SERVING AMERICA'S RAILROADS
WITH ROLLED STEEL TIRES, WHEELS and DRAFT GEARS**

(Continued from page 13)

no highway saturation point and those who wistfully hope it does are whistling in the breeze. Public transportation policy is permitting our competition to grow stronger every day as it gradually reduces the railroad industry to a factor of movement that will handle only traffic its competitors don't want because they can't make a profit on it.

"We cannot remain in the form you recognize today, for there comes a point of reduced operation to meet increasing costs and decreasing traffic, beyond which there is no stepping without erosion of plant.

"I think the railroad industry has observed an admirable code of ethics. It has been strangled and weakened by thousands of constrictions, and yet it has assiduously followed the rule

of turning the other cheek. To me, it is time we stopped our fine code of ethics; it is time we abandoned our soft talk; it is time we started to fight; and it is time to fight the way a man fights when he realizes his life is at stake—with sheer human determination that dictates a violation of the so-called niceties of life."

New Officers—N. E. Ottosen, traffic manager of Associated Plywood Mills, Inc., Eugene, Ore., was elected president of the board to succeed Pete Stallcop, executive secretary of the Pacific Northwest Grain Dealers Association, Spokane, who presided at the meeting. W. C. Cole, traffic consultant, Portland, was elected vice-president, and Nelson Hickok, traffic manager of Western Paper Converting Company, Salem, Ore., was elected executive secretary.

Safety

Is Safety Missing the Mark?

There's too much emphasis on the physical side; not enough on other harms, says Warren Brown, Monon chief

"I feel we should slow down our concentration on teaching the principles of safety and our explanation of the physical damage carelessness can bring to merchandise and people," Warren W. Brown, president of the Monon, recently told members of the Southern Safety Conference in Louisville, Ky.

"These are things our men already know and understand," he continued.

BRT TO MAKE ECONOMIC STUDY OF RR INDUSTRY

The Brotherhood of Railroad Trainmen has asked the Public Affairs Institute, a Washington, D.C., research organization founded by the BRT, to make an economic survey of the railroad industry.

W. P. Kennedy, BRT president, in announcing assignment of the survey, said: "We want to know what the railroad man can expect of the future. If that picture is gloomy, we want to know what can be done about it. Why has the carriers' position in the total transportation field been steadily slipping in the face of tremendously increased national productivity? Who is hauling this business?"

Mr. Kennedy said the survey will investigate all aspects of the railroad industry and make comparisons with other forms of transportation, particularly over-the-road trucking. Its results will be made available to railroads.

"Let us instead translate loss and damage and personal injury into terms of the hardship which each man can create for himself through carelessness. We must reach out for examples. For instance, every man knows the harm he can do to a retail supplier if he should receive in a damaged condition some article he ordered for his home. Although the loss would be made good, the time and trouble he expended would be resented. He might never go back to the dealer, and some of his resentment would rub off on his neighbors and friends. The dealer's security and reputation would suffer—for no other reason than carelessness.

"Safety has a fundamental place in our operations. But before it can rise to the proportions for which we are all reaching, we must come to learn that:

- A man does not have to be told how important safety is nor why it is important;

- But he must understand how important it is to him, and why it is important to him."

Target—Earlier in his talk, Mr. Brown touched upon the "security" of railroad employees, should government operation of railroads ever come to pass. "If the railroad industry keeps losing business in the serious cross-fire of mushrooming truck and air service, increased public subsidy, and continuance of damaging regulation, the industry will get progressively weaker. The ominous finger of socialization will come closer. It could strike, and if it has a more likely target than the railroads, I haven't seen it.

"Ask your people what will happen to their security," he continued. "You don't have to take them beyond the initial conflict of railroad pay scales and the civil service rate structure. Something will have to give. And you can be sure that the practice of politics will find the government pay scale prevailing. Bureaucracy dares not risk antagonizing a nation by increasing the rates of its thousands of workers to the level of the railroad scale.

"After you talk about that point and you feel that they are still harboring the subconscious conviction that a strike would 'win' for them, you have two simple answers. At that stage of the game, the position of the railroad industry would not be that of a dominant power in transportation. The government could move slowly. But when it had to move, which group do you suppose would get pushed around? Which group would they rather have threaten a work stoppage—railroad employees or the present roster of government employees?

"After the smoke had cleared, the railroads would be running—but on the government's terms, because the government would be running them, not in theory, but in fact."

Ansul Announces Dates For Firefighting Classes

The Ansul Chemical Company again this spring and summer will conduct a series of three-day industrial firefighting schools at Marinette, Wis. Last year nine three-day schools were held and students included many representatives of the railroad industry. Starting dates for this year's 11 classes are May 24; June 14, 21, 28; July 19, 26; August 16, 23, 30; and September 13, 20.

Rates & Fares

ICC Would Require Filing Of Section 22 Quotations

The Interstate Commerce Commission has served notice of a proposed rule to require the filing of section 22 quotations 30 days prior to their effective dates.

Section 22 quotations are rates accorded the government and other eligible parties under section 22 of the Interstate Commerce Act. They are not now published rates.

The 30-days-notice requirement would not apply on section 22 quotations with respect to which an authorized official of the government department concerned certified that, "due to the imminence of movement," the carrier should be permitted to give shorter notice. The proposed rule would not apply in any respect to section 22 quotations made on shipments "desig-

nated as classified for security reasons" by an authorized official of the interested department.

The commission has given interested parties until May 23 to file protests.

Reduced Linoleum Rates

The General Freight Traffic Committee of Eastern Railroads has before it a proposal to reduce substantially rates on linoleum, felt base floor covering, etc., within Official Classification territory, and provide for truck delivery of those commodities within switching or corporate limits of specified destinations, when requested by

shipper or consignee. Examples of present and proposed rates, in cents per cwt., are as follows:

Mileage Blocks	Present* 30,000 lb min.	Proposed† 30,000 lb min.	45,000 lb min.
40	28.8	25	20
120	42.6	38	32
220	55.2	43	36
320	65.6	50	43
520	82.8	78	71
720	100.1	98	91
825	109.3	107	100

* Subject to X-175-B

† Not subject to X-175-B

Truck delivery will be made at an arbitrary of 3 cents per cwt., with total minimum charge per cwt. to be not less than 50 cents when the 30,000-lb minimum carload is observed, or 43 cents when the larger minimum is shipped and handled.

11.3 per cent; machinery and boilers, 9.6 per cent; agricultural implements and vehicles other than automobiles, 9.2 per cent; coal and coke, 8.8 per cent; vehicle parts, 8.5 per cent; metals other than iron and steel, 8.3 per cent, and gravel, sand and stone, 7 per cent.

SP Commuters Like Burlington Gallery Car

Eighty-four per cent of Southern Pacific commuters who have voiced an opinion favor double-decked gallery-type cars for the road's peninsula commuter service at San Francisco.

That's the preliminary finding as the SP began a detailed tabulation of postal card questionnaires sent in by commuters after a gallery coach, loaned by the Burlington, was exhibited in San Francisco and later tested in different suburban trains. A detailed account of the SP's findings has not (Continued on page 77)

Traffic

Loadings Forecast for 2nd Quarter

Shipper boards estimate that total will be 7.2 million cars, off 7.6 per cent from last year

Freight carloadings in the second quarter of 1954 are expected to be 7.6 per cent below the same period of 1953, according to estimates of the 13 regional Shippers Advisory Boards.

On the basis of those estimates, loadings of the 32 principal commodity groups will be 7,188,765 cars in the second quarter of 1954, compared with 7,779,006 actual loadings for the same commodities in the corresponding period last year.

One Regional Increase — Only one board—the Pacific Northwest—estimated an increase while 12 estimated decreases in loadings for the second quarter compared with the like 1953 period.

The tabulation shows actual loadings for each district in the second quarter of 1953, the estimated loadings for the second quarter of 1954, and percentages of change.

SHIPPERS ADVISORY BOARDS	ACTUAL LOAD- INGS SECOND QUARTER, 1953	ESTI- MATED LOAD- INGS SECOND QUARTER, 1954	PERCENT CHANGE
New England	113,861	111,016	2.5 dec.
Atlantic States	776,604	720,689	7.2 dec.
Allegheny	918,121	809,145	11.9 dec.
Ohio Valley	902,689	828,552	8.2 dec.
Southeast	1,057,150	1,036,759	1.9 dec.
Great Lakes	678,650	582,149	14.2 dec.
Central Western	228,175	197,435	13.5 dec.
Midwest	851,923	797,672	6.4 dec.
Northwest	734,359	638,217	13.1 dec.
Trans-Missouri			
Kansas	351,949	342,665	2.6 dec.
Southwest	314,839	494,926	3.9 dec.
Pacific Coast	395,536	368,263	6.9 dec.
Pacific Northwest	255,150	261,277	2.4 inc.
TOTAL	7,779,006	7,188,765	7.6 dec.

The boards expect an increase in loading of 10 and a decrease in 21 of the commodity groups listed. Loading of fresh vegetables, other than potatoes, is expected to be the same as one year ago.

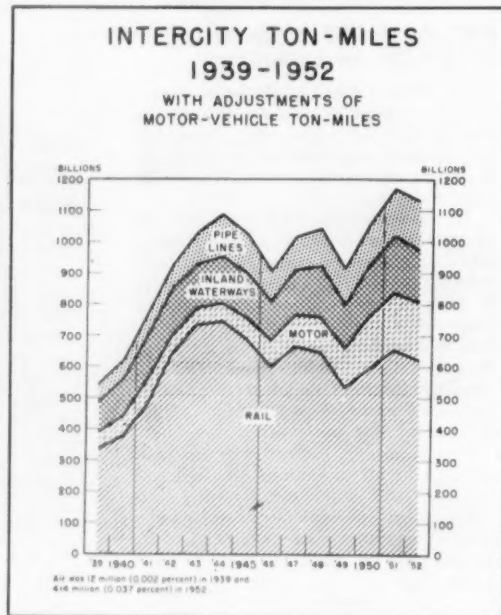
Among the expected increases are: Frozen foods, fruits and vegetables, 8.9 per cent; cement, 3.6 per cent; cotton, 3.1 per cent; fresh fruits, other than citrus fruits, 3.1 per cent; salt, 1.4 per cent; grain, 1.2 per cent, and sugar, syrup and molasses, 0.9 per cent.

Commodities for which decreases are estimated include: Automobiles and trucks, 26.7 per cent; ore and concentrates, 17.7 per cent; iron and steel, 16.6 per cent; citrus fruits,

Briefly ...

... A new luggage handling service for passengers arriving in Pittsburgh on the "Pittsburgher" from New York and the "Golden Triangle" from Chicago and Detroit, was inaugurated by the Pennsylvania on April 1. Passengers on these trains may have their luggage checked by the Pullman porter on their sleeping car and claim the baggage at the taxicab stand in front of Pennsylvania Station. A similar service has been available for some time for passengers arriving in Chicago on the "Broadway Limited."

LATEST STUDY, by ICC's Bureau of Transport Economics and Statistics, on intercity ton-miles points up these results: Railroads in 1952 accounted for 623.5 billion ton-miles, 54.99 per cent of the nation's total. Motor vehicles (common and contract) handled 184.1 billion ton-miles, or 16.24 per cent. Waterways got 14.85 per cent, pipelines 13.99 per cent, and airways (not shown on chart) 0.037 per cent. Since the previous ton-mile study in 1949, the bureau has revised its estimates on motor vehicle ton-miles. The new figures indicated that earlier calculations on motor carrier business were too low.



IF YOU ARE IN THE
TRANSPORTATION BUSINESS

You can't
afford to
leave this
out of
your
plans!



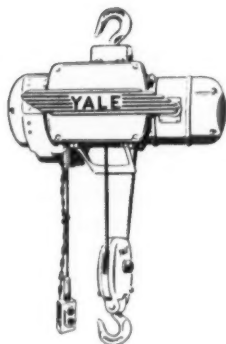
Progressive planning calls for modern handling methods in old and new plants alike. For, materials handling can account for as much as one-third of operating costs . . . remains the one phase of most manufacturing operations in which sizeable savings are still possible.

In fact, you can cut handling costs in half . . . and then in half again through proper use of YALE equipment. You can also increase produc-

tive capacity . . . make savings in time, space, manpower, and plant maintenance.

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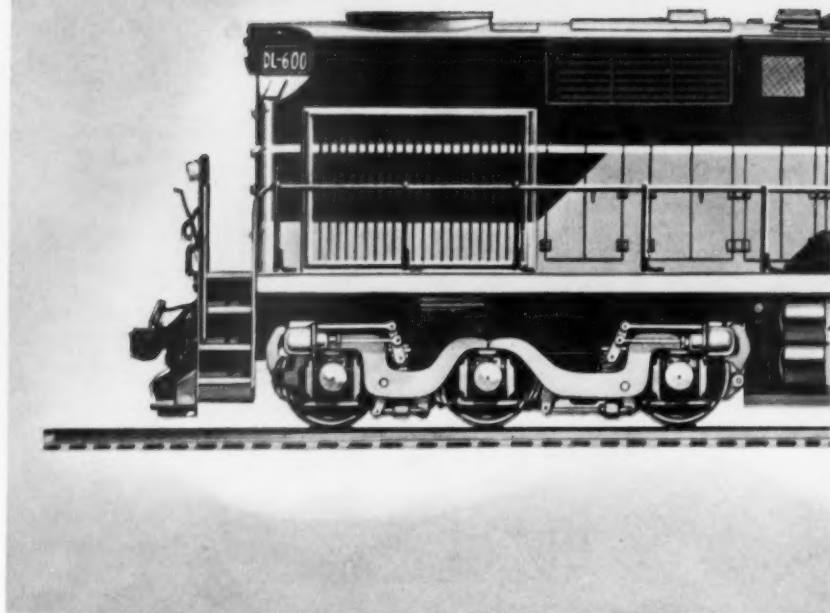
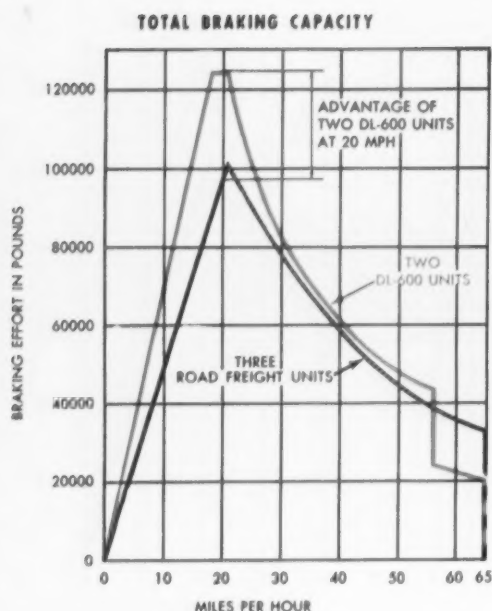
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In Canada write: The Yale & Towne Manufacturing Co.
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Gas, Electric, Diesel and LP-Gas Industrial Trucks • Worksavers • Hand Trucks • Hand and Electric Hoists • Pul-Lifts



New, All-Purpose

**offers highest continuous and short-time tractive ratings—
for more speed, power, versatility at less cost**

The new Alco DL-600, *the most versatile locomotive ever built*, produces at 65-mph gearing the highest continuous tractive effort—79,500 lb—and the highest short-time tractive effort of any diesel electric on the rails today.

Thus in every type of service—high-speed freight and passenger, heavy-duty switching and transfer, mine haul, and humping—the new DL-600 hauls present tonnages at *higher speeds and heavier tonnages at present speeds, all at lower cost.*

This latest development in modern motive power has the improved Model 244 16-cylinder V-type Alco engine . . . a single unit, using one generator, one electrical system . . . conservatively rated at 2250 hp and with all parts interchangeable with other Alco locomotive engines.

"2-for-3" Advantages of New DL-600 Open Whole New Field for Railroad Savings

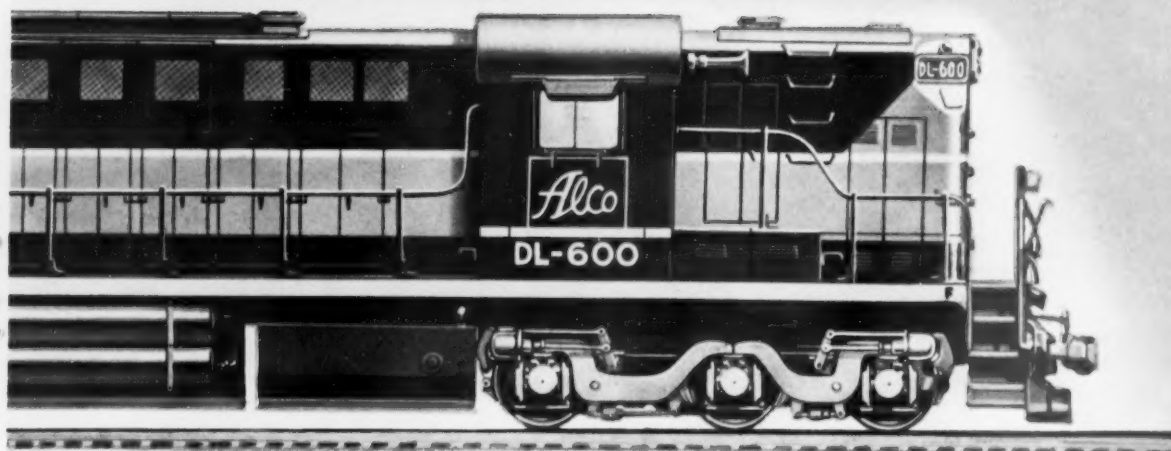
With unmatched speed, power, versatility, *two* DL-600's will normally do what *three* 4-motor units will do . . . with these advantages:

- TWO UNITS TO BUY INSTEAD OF THREE
- TWO UNITS TO OPERATE INSTEAD OF THREE
- TWO UNITS TO MAINTAIN INSTEAD OF THREE
- PLUS: Higher continuous tractive effort
25% more dynamic braking effort
15% shorter length
Same number of traction motors (12) in only 4 trucks

The new DL-600 also offers 1) the greater flexibility of all-purpose design; 2) interchangeability of components with other Alco locomotive engines; and 3) *the world's most powerful dynamic braking.*



AMERICAN



"2-for-3" Locomotive

More Braking Power at All Speeds

At most speeds the new DL-600 exerts approximately 75 per cent more dynamic braking effort than a standard freight unit of any other manufacturer.

At speeds from 18 to 65 mph the DL-600 exerts more dynamic braking effort than any other diesel electric ever built. At 50 mph, for example—where capacity on some diesel electrics may drop to zero—a single DL-600 still has an available braking effort of 24,300 lb.

Proved Components

Remember, too: all main components of the new DL-600 have been *proved in service*. The Model 244 engine—with new water-cooled turbosupercharger system and new hardened crankshaft—is on the job today in Alco locomotives the world over. The traction motors are the same rugged, high-output motors installed on all Alco road locomotives. And the three-motor trucks—with all motors readily accessible for servicing—are based on 12 years' design and operating experience.

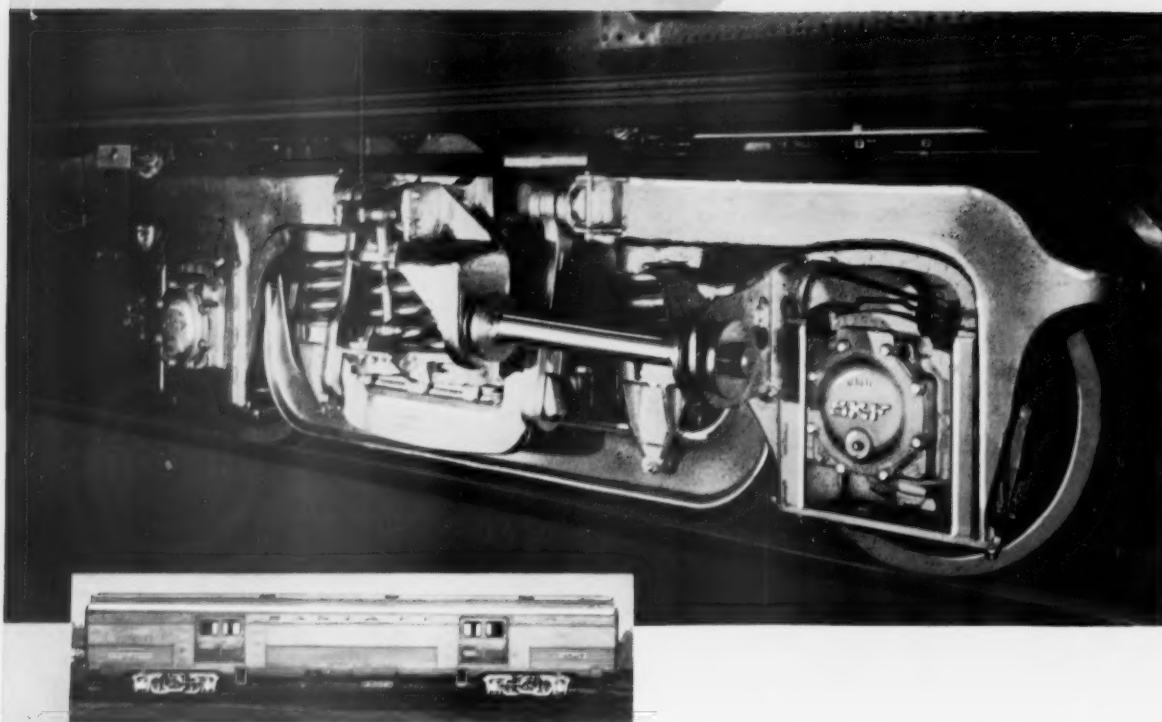
For complete details on the new DL-600—latest example of Alco's *better motive power for greater earning power*—contact your nearest Alco locomotive representative.



ROOMINESS, excellent visibility, low noise level of DL-600 cab add up to greater comfort and safety for operating crew.

LOCOMOTIVE COMPANY

Sales and
Service Offices
in Principal
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Where only the best will do SANTA FE SPECIFIED SKF JOURNAL BOXES

Here's one of the Santa Fe's 50 new Budd-built baggage cars just going into service on such famous runs as El Capitan and San Francisco "Chief."

Head-end cars have to be rugged—smooth-riding—absolutely dependable, mile after mile, year after year.

So it's significant that SKF was specified when it came to selecting the roller bearing journal boxes for this equipment. Also, Santa Fe's 10 new Budd-built railway postal cars are SKF-equipped.

It will pay you well to remember this fact—you'll see more SKF Journal Boxes on freight and passenger cars and locomotives throughout the world than any other journal box.

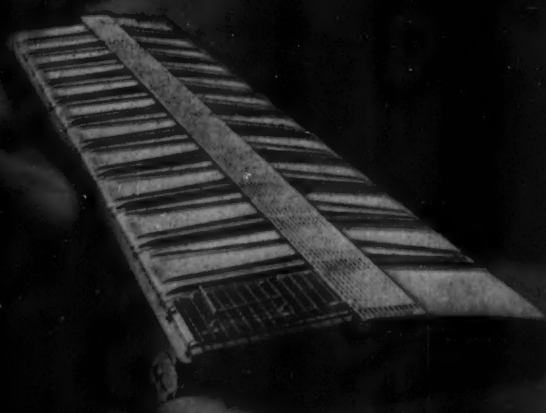
SKF INDUSTRIES, INC., PHILADELPHIA 32, PA.
—manufacturers of SKF and HESS-BRIGHT® bearings.

7548



SKF®

**ROLLER BEARING
JOURNAL BOXES**



Standard's *Diagonal Panel Roof*

ONE OF THE NECESSARY COMPONENTS OF
A PROFIT-PRODUCING FREIGHT CAR

If the profit a freight car makes the first five years in service is wiped out by maintenance costs and damage claims during the next five—what has been the total ten year record for that car?

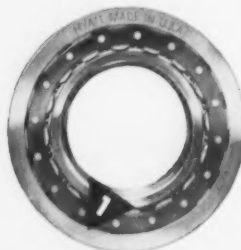
It's a NON-profit-producer—a car that should never have been put on the line.

Standard components are laboratory-designed to produce railroad profits for the life of the car.

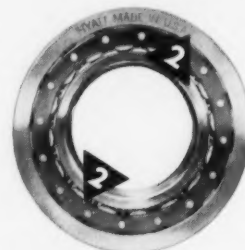
Standard RAILWAY EQUIPMENT MANUFACTURING COMPANY
GENERAL OFFICE: 4527 Columbia Avenue, Hammond, Indiana
New York • Chicago • St. Paul • San Francisco
Standard Railway Equipment Manufacturing (Canada) Ltd.
Sun Life Building, Montreal

(We Repeat!) **HYATT** **IN ROLLER**

New Traction Motor Bearing



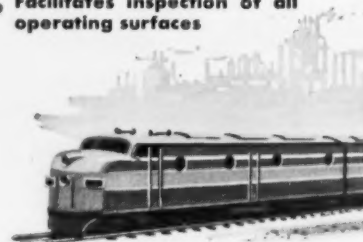
Hyatt's new design eliminates all rubbing contact between the bearing cage and stationary race flanges.



Unrestricted flow of lubricant to all bearing parts is achieved by new cage design.

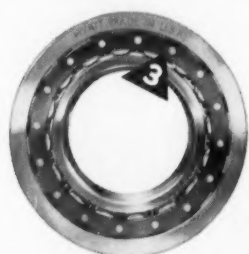


- No rubbing contact between cages and race flanges
- Improves flow of lubrication
- New treated, roller-riding, steel cage
- Safer
- Longer lasting
- Facilitates inspection of all operating surfaces



LEADS THE WAY BEARING DESIGN

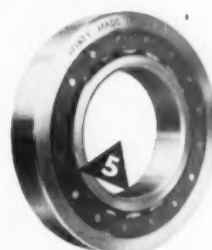
Will Keep Your Diesels On the Go!



New manufacturing process insures permanent rigidity of cage under operating stresses.



Cage and rollers remove as a unit, permitting complete and easy inspection of all operating surfaces.



Rings and bars of the new steel cage are treated to give the new bearing greater wear resistance.

Just a year ago we announced the new Hyatt pinion-end bearing for traction motor armature shafts. It was, and still is, *the first pinion-end bearing available with the combined advantages of a roller-riding cage design and maximum capacity rollers!* Hyatt's new design eliminates rubbing contact between the cage and stationary race flanges and permits improved flow of lubricant to all parts of the bearing. Rings and bars of the new steel cage are specially treated

for greater resistance to wear, and a new assembly process assures permanent rigidity of the cage under operating stresses. Cage bars conform to the shape of the rollers, and cage and rollers remove as a unit—permitting complete and easy inspection. The result is an easily-inspected bearing with far greater life expectancy. It will pay you to make sure *your* diesels are *Hyatt-equipped!* Hyatt Bearings Division, General Motors Corporation, Harrison, N. J.



FOR TRACTION MOTOR ARMATURE SHAFTS

HYATT

STRAIGHT BARREL TAPER

**all that glitters
(for years and years)
is not expensive!**

Quite the contrary—when you're talking stainless.

Stainless steel passenger cars—inside and out—are the finest looking cars on the road today. But that's only the beginning.

For stainless (1) enables you to meet both structural and decorative requirements in a single member, (2) makes possible considerable reductions in weight with no sacrifice in strength or safety, and (3) resists attack by dirt, fumes, weather and cleaning compounds—important not only for lasting appearance but also for protecting those hard-to-reach sections within the structure.

Stainless steel, in other words—along with glitter—offers you the dollars-and-cents advantages of simpler, more economical design and far lower maintenance costs.

Next time, make it easy on yourself—more attractive to your customers. *Make it stainless.*

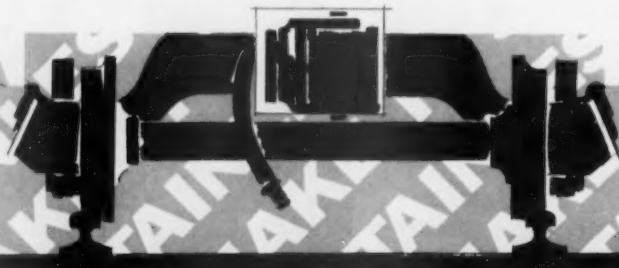
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Producers of alloys



metals and chemicals



a new concept
in travel comfort!



SANTA FE SPECIFIES THE DWIGHT AUSTIN

Traveleze Seat

FOR THEIR NEW
BUDD-BUILT COACHES



No. R-520



Santa Fe's new Budd coaches are designed throughout to provide the most pleasant, most enjoyable ride ever offered in rail-coach travel. Every Santa Fe passenger is assured a relaxed, restful ride in a Dwight Austin comfort-contoured *Traveleze Seat* instantly adjustable to fit the preferences of any traveler. The new *Traveleze Seat* features:

- a cushioned leg-rest that can be adjusted to any position
- the first adjustable head-rest
- modern lounge-chair styling
- all-steel frame construction
- tackless rubber-lock method of upholstery

Dwight Austin also manufactures for railroads the famous Slumber-Foam mattresses and foundations, folding chairs, and lounge furniture.

More and more, Dwight Austin quality products lead the way in modern railroad operations.

DWIGHT AUSTIN PRODUCTS COMPANY

KENT, OHIO

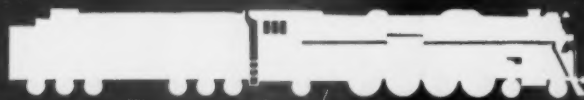
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EXCLUSIVE SALES AGENTS

624 S. Michigan Ave., Chicago 5, Illinois



in Suburban service



A single unit Train Master locomotive has equalled or bettered the existing schedules for a heavy 4-8-2 locomotive in suburban service.

Money spent for steam locomotive repairs
... adds to operating costs.

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... adds to net profits.



TRAIN MASTER

First in power ... First in performance
... the 2400 horsepower locomotive that is setting
today's trend toward more useful Diesel motive power.

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a name worth remembering when you want the best

DIESEL LOCOMOTIVES AND ENGINES • RAIL CARS AND RAILROAD EQUIPMENT • ELECTRICAL
MACHINERY • PUMPS • SCALES • WATER SERVICE EQUIPMENT • HAMMER MILLS • MAGNETOS

The smoothest distance between two points—

National products smooth out end-to-end,
vertical and lateral shocks . . . make satisfied
shippers by reducing lading damage.

Improvement of riding qualities is a basic
concept of National design philosophy
—and has been for over 85 years.

NATIONAL Draw Gear Assemblies and Freight Car Trucks



"Progress through Research"

Products by National shown:
AAR Type F Interlocking Coupler
Y-45 Yoke
MF-260-1 Rubber Cushioned Draft Gear
C-1 All-Purpose Truck
Flexo-4 Journal Box Lids

A-8799

NATIONAL MALLEABLE and STEEL CASTINGS COMPANY

Cleveland 6, Ohio

COUPLERS • YOKES • FREIGHT TRUCKS • DRAFT GEARS—RUBBER AND FRICTION • JOURNAL BOXES AND LIDS



Dayton **ENDLESS V-Belts** solve power-interruption problem

1" BC-6 Endless V-Belt Axle Drive answers need of major railroad for constant, positive power

Here's how one railroad, working with Dayton Field Engineers, obtained more dependable power for air conditioning units and reduced belt drive maintenance and replacement costs at the same time.

THE PROBLEM —

A program to improve air conditioned passenger comfort was threatened by excessive belt breakage on under-car generator drives. The power demands placed on the belts using flat pulleys exceeded their maximum capacity. As a result, frequent service interruptions occurred, battery reserves were dissipated and increased yard recharging was necessary.

Exhaustive tests were made of several types of drives, but none proved entirely successful or economical. Dayton Field Engineers were then called in to discuss the problem.

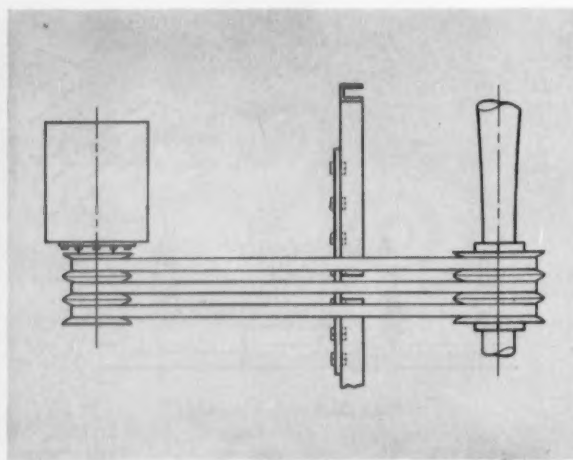


Completely Safe! Dayton's recommended procedure for cutting and splicing end-sill to accept Endless V-Belts has the written approval of the foremost builder of railway trucks.

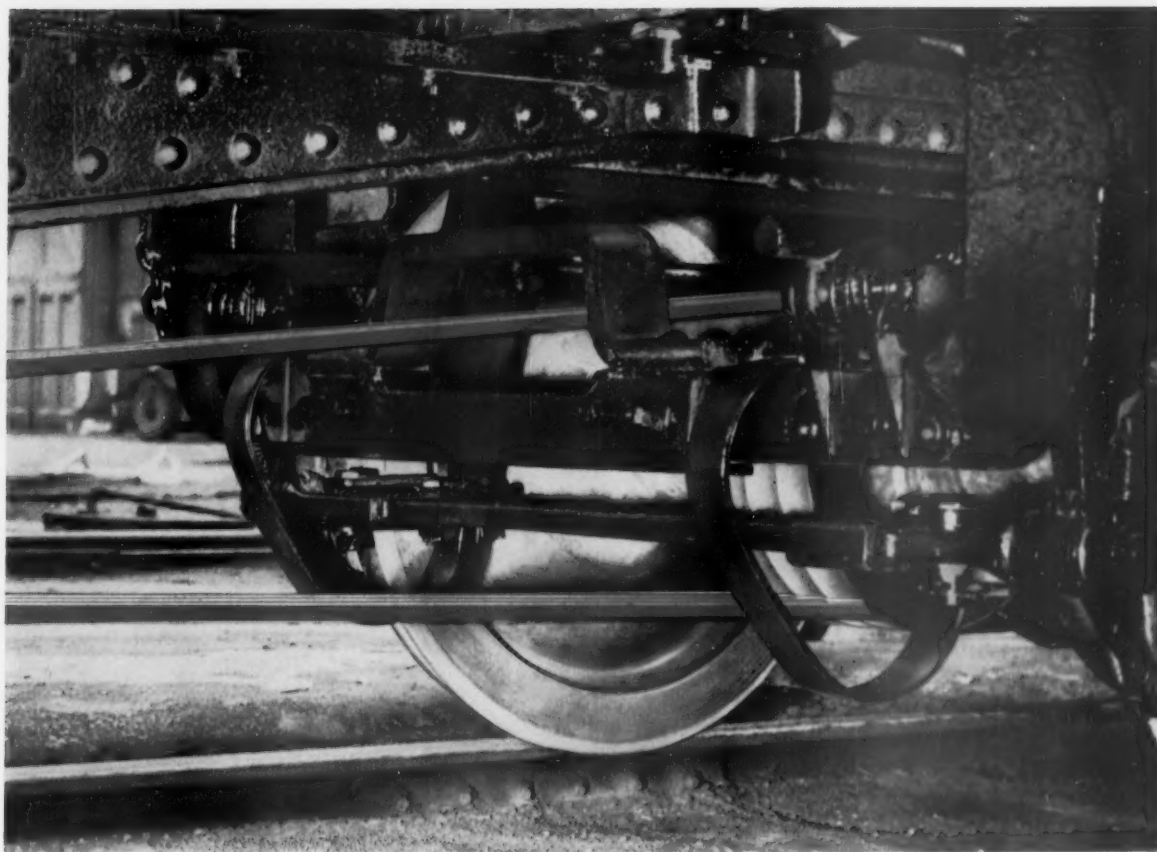
THE SOLUTION —

Dayton Field Engineers recommended replacement of all old style belt drives with 1" BC-6 Dayton Endless V-Belt drives.

Power supply improved at once! The harder gripping, longer lasting Dayton Endless V-Belts developed power to satisfy the heaviest demands of air conditioning units. Power interruptions were eliminated. Maintenance and replacement costs were drastically reduced. The rugged Dayton Endless V-Belts outlasted old style belts by 4 and 5 to 1 setting new records for dependable performance.



Schematic diagram shows how end-sill is cut to accept Dayton Endless V-Belts. Note the minimum cut required and the manner in which the splice is made to reinforce the sill.



Dayton Endless V-Belts are easily replaced in axle drives. They outlast two and three wheel turnings. Changes can be made when trucks are down for normal wheel repair.

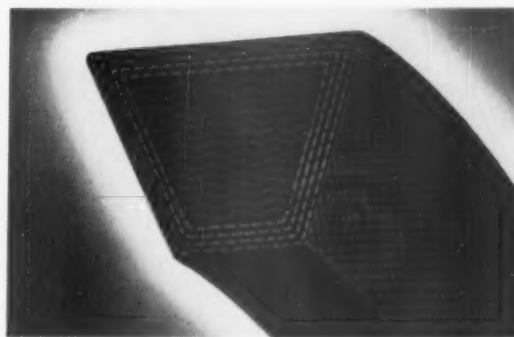
And, for added service protection, Dayton 1" Connector V-Belts can be used on interim replacement of Endless belts where damage has resulted from extraneous causes.

200,000 Miles of TROUBLE-FREE Performance

Dayton 1" BC-6 Endless V-Belts rolled up 200,000 miles of under-car service in the months that followed. So successful have they been that one large railroad has specified their installation on 63 new cars to be added to the line.

This is a typical example of how Dayton Field Engineers and Dayton Research lend a hand to the railway industry in the solution of its problems.

A call will place a Dayton Field Engineer at your service. Or write direct to: Dayton Rubber Co., Railway Division, Dept. 201, Dayton 1, Ohio.



Dayton Endless V-Belts are readily convertible to use with belt connectors for emergency applications.


Railway V-Belts by

Dayton Rubber
Since 1905

World's Largest Manufacturer of V-Belts

DAYTON RUBBER CO., RAILWAY DIVISION, DAYTON 1, OHIO

Congratulations to the Santa Fe on its newest contribution to American passenger train progress; namely, the efficient and luxurious cars now being installed on the El Capitan.



Shippers are sold at the siding where railroading begins and ends

Big revenue freight trains begin and end as small switching movements on thousands of sidings where railroad performance is measured by shippers.

Here's where the economies and versatility of the small diesel-electric locomotive shine.

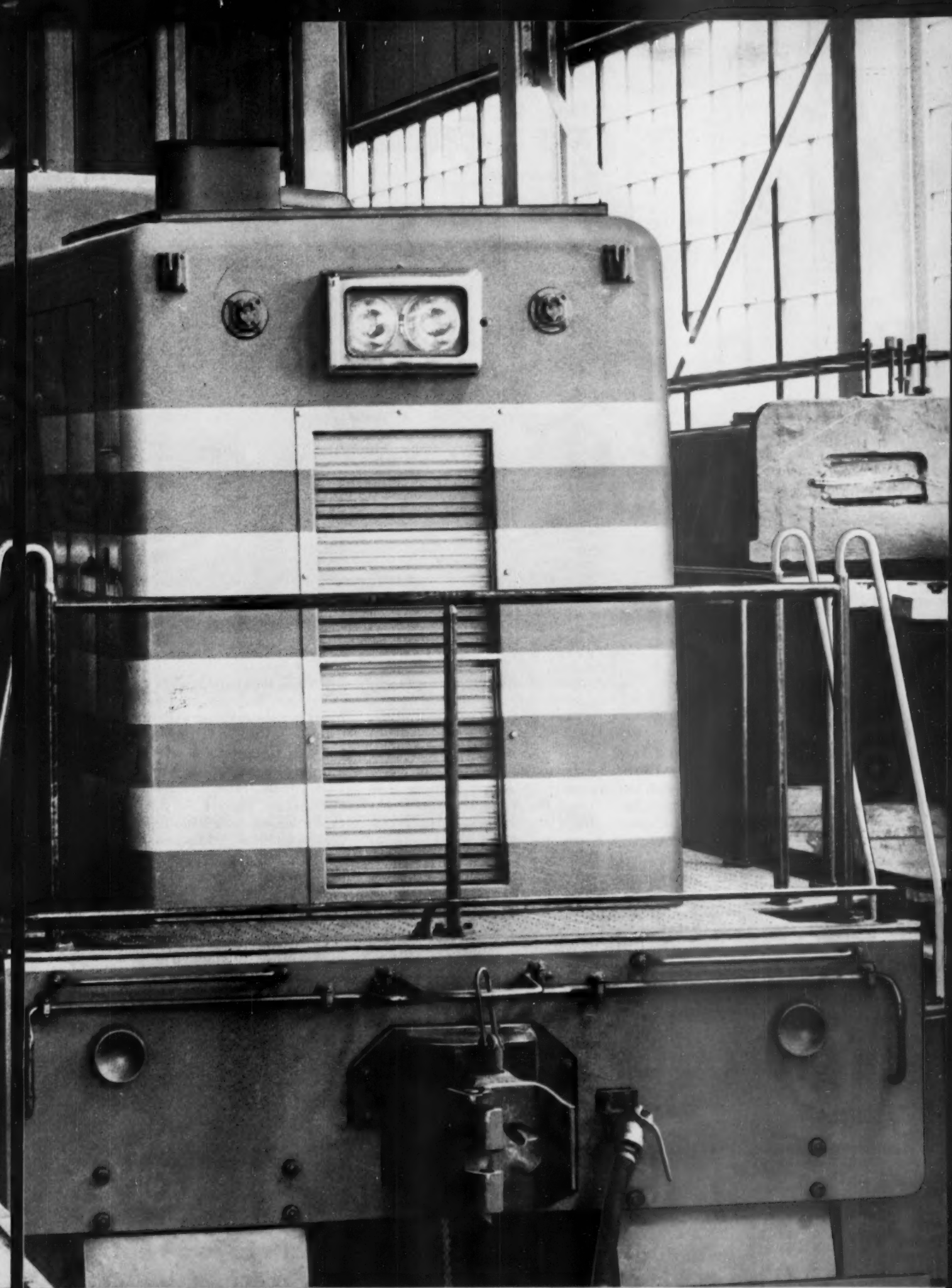
Why not investigate your operation to see if these "Train Makers" can spread your investment dollar, give

shippers better service, and make more trains for the mainline?

For additional information, contact your nearest G-E Apparatus Sales office, or write to Section 121-63 for your free copy of "Train Makers" (GED-2060), an interesting booklet describing the important role of small diesel-electric locomotives in modern railroading. General Electric Company, Schenectady 5, N.Y.

You can put your confidence in—

GENERAL  **ELECTRIC**



Here's Proof of Performance...

Service records for 20-mile portion of Santa Fe track show how long Creosote keeps various types of ties in service



THERE ARE 341 Creosoted ties, installed in 1910, between the crossing in the foreground and the far end of the grain elevator. This is Santa Fe track at Zenith, Kansas.

THE excellent service records of the Atchison, Topeka & Santa Fe Railway contain much valuable data on the effectiveness of Creosote as a means of protecting ties against decay far in excess of normal life.

The attached table deals with ties in a portion of Santa Fe track between Sylvia and St. John, Kansas, from MP 247 plus 1608' to MP 268. Three different types of Creosoted ties—hewn southern yellow pine,

sawn southern yellow pine and hewn gum—were placed in track in 1909 and 1910. Up until the last inspection, January 1, 1949, the average life of these ties varied from 24.09 years to 36.13 years. Anticipated average life goes as high as 47.50 years. Ten passenger and six freight trains pass over this section of track every day. These figures are proof that Creosote treatment is the surest possible method of keeping ties

in track for the longest possible time.

You get uniformly good results from Creosote treatment when U-S-S Creosote is used. U-S-S Creosote is a uniform product, the result of continuous processing in the plants of United States Steel. For complete information, contact our nearest Coal Chemical Sales Office or write directly to United States Steel Corporation, 525 William Penn Place, Pittsburgh 30, Pa.

Santa Fe track—Sylvia to St. John, Kansas

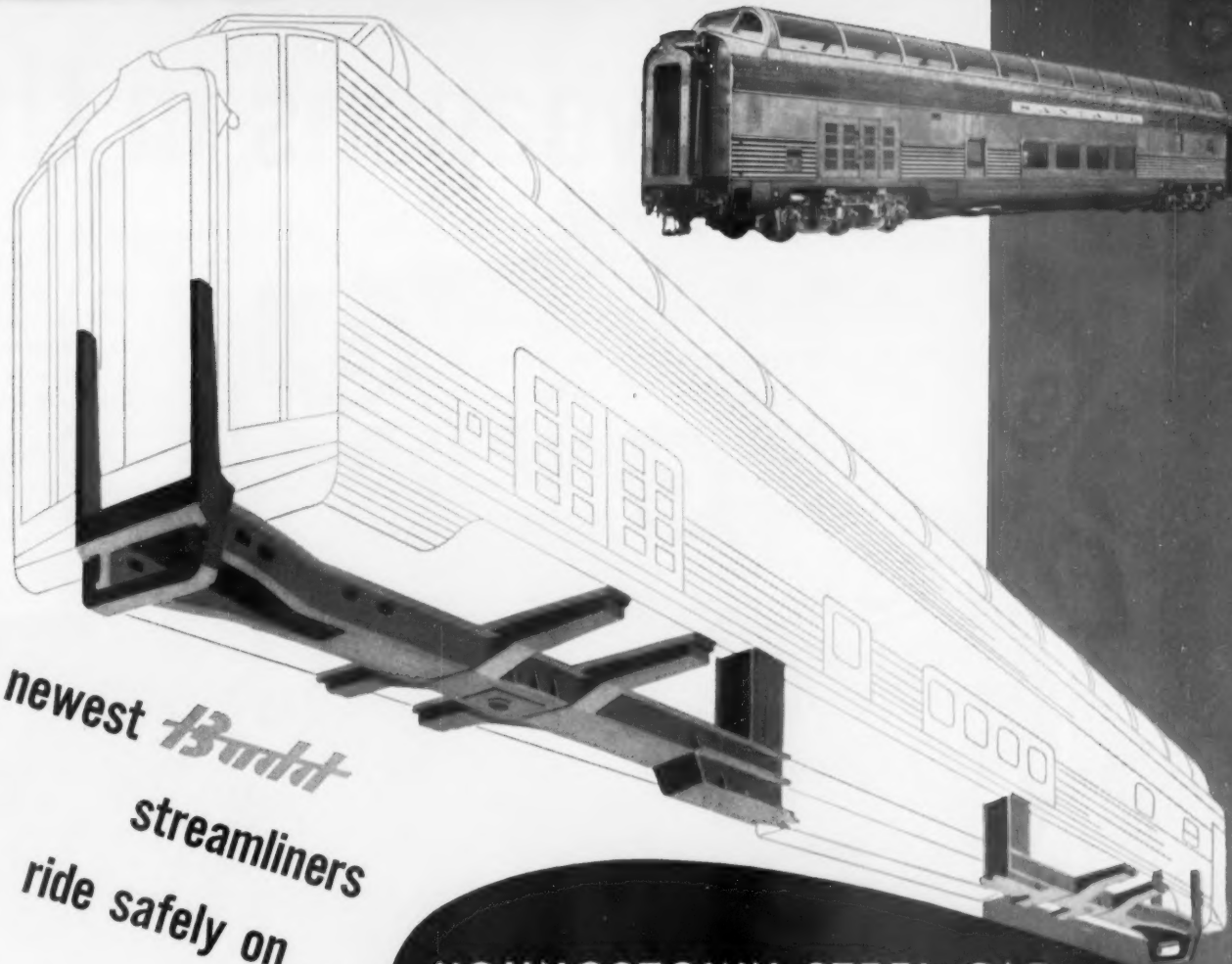
Type of tie	Year Installed	Original Number	Remaining Jan. 1, 1949	Per cent Removed	Average life to Jan. 1, 1949	Expected Average Life
Hewn southern yellow pine	1910	40,480	13,195	67.4	29.78 years	36.19 years
Sawn southern yellow pine	1910	9,312	1,530	83.57	24.09 years	31.67 years
Hewn gum	1910	13,014	8,899	31.62	35.70 years	47.50 years
Hewn gum	1909	1,282	810	36.82	36.13 years	46.99 years

U·S·S CREOSOTE



4-253

UNITED STATES STEEL

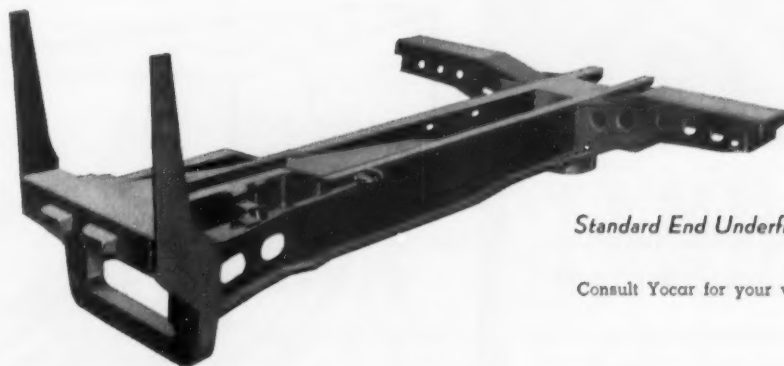


newest *Budd*
streamliners
ride safely on...

YOUNGSTOWN STEEL CAR
WELDMENTS

YOCAR

Budd's luxurious new full length dome cars ride safely on Yocar high strength steel weldments. Budd and Yocar skills in these ultra-modern cars for the Santa Fe's Chicagoan, El Capitan and Kansas Cityan set a new standard of service and comfort for American travelers. Yocar's techniques in fabricating and welding high strength steels assure safe foundations wherever they are employed.



Standard End Underframe

Consult Yocar for your weldments.

YOUNGSTOWN STEEL CAR CORPORATION

NILES 6, OHIO

YOCAR

new weapons in the



This is the location of the Cushion Underframe

Actually built-in as an integral part of the box car underframe, the Cushion Underframe, while inconspicuous, is intended to perform important damage reduction functions. Eight railroads using a total of 100 PS Cushion Underframes include:

Bangor & Aroostook, Chesapeake & Ohio, Erie,
Great Northern, New York Central, Norfolk & Western,
Pennsylvania, and Western Pacific.



war against damage

You can't see it because it's built right into the underframe of a box car. But the Pullman-Standard Cushion Underframe promises to become a new weapon in the war against lading damage. 100 Cushion Underframe-equipped PS-1 Box Cars have recently been put into service on eight railroads, in another attack on costs of lading damage.

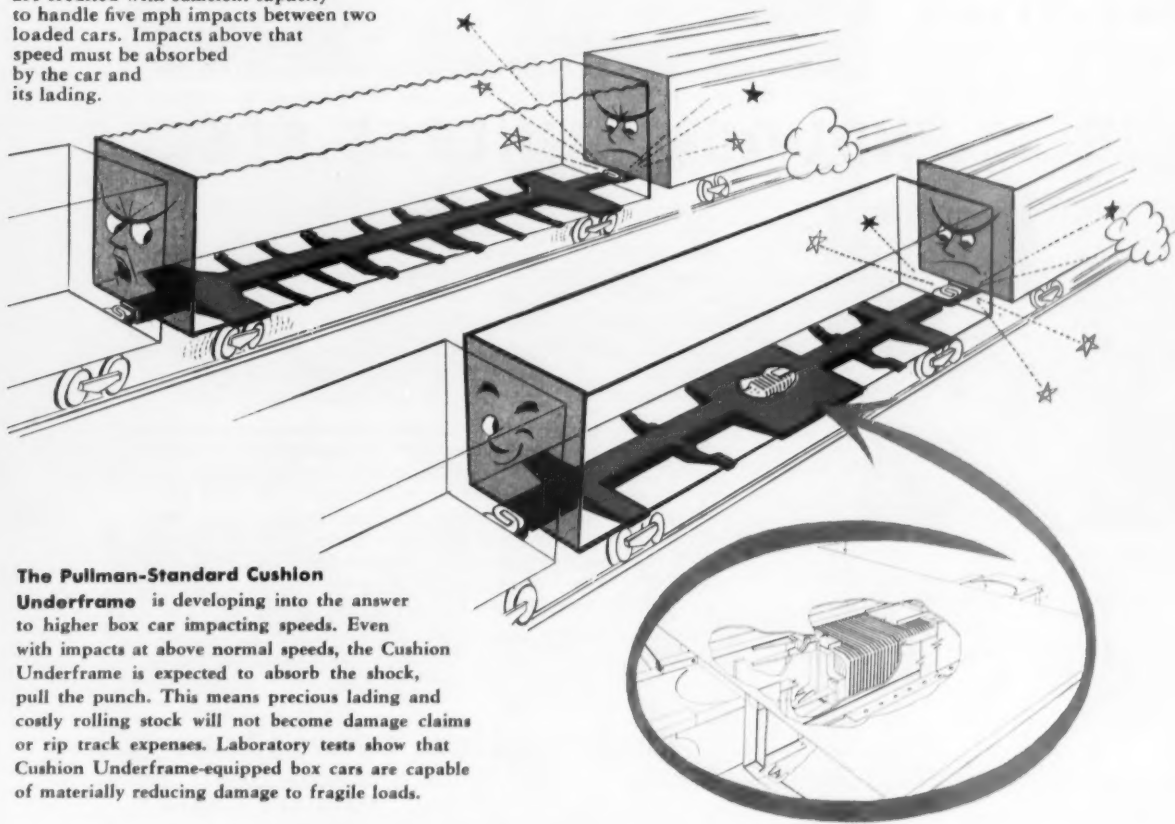
Pullman-Standard engineers and researchers, joining forces with the railroads, continue to search for new damage prevention developments. In addition to important advances expected from the Cushion

Underframe, significant damage reduction progress is being evidenced by the PS Box Car Compartmentizer and the full length Lading Strap Anchor.

Such lading protection devices as these are continuing to help railroads to offer faster service for shippers. And consignees are able to count more and more on receiving their shipments on time, with less and less damage. Three informative books detailing the Cushion Underframe, the Compartmentizer, and the Lading Strap Anchor have been prepared by Pullman-Standard. Write for your copies.

A CLUE TO BETTER LADING PROTECTION

Two active conventional draft gears, are credited with sufficient capacity to handle five mph impacts between two loaded cars. Impacts above that speed must be absorbed by the car and its lading.



The Pullman-Standard Cushion

Underframe is developing into the answer to higher box car impacting speeds. Even with impacts at above normal speeds, the Cushion Underframe is expected to absorb the shock, pull the punch. This means precious lading and costly rolling stock will not become damage claims or rip track expenses. Laboratory tests show that Cushion Underframe-equipped box cars are capable of materially reducing damage to fragile loads.

YOUR NEEDS CREATE THE PULLMAN "STANDARD"

PULLMAN-STANDARD

CAR MANUFACTURING COMPANY

SUBSIDIARY OF PULLMAN INCORPORATED

79 EAST ADAMS STREET, CHICAGO 3, ILLINOIS

BIRMINGHAM, PITTSBURGH, NEW YORK, SAN FRANCISCO WASHINGTON

**In the Santa Fe's
brilliant new
EL CAPITAN
CHICAGOAN
KANSAS CITYAN**



REPUBLIC ENDURO STAINLESS STEEL



Roof section assembly. Outer stainless steel sheathing is being welded by the Budd Shotweld process to the stainless steel carlines which form the ribs of the roof section.

118 all-stainless-steel cars have been built by The Budd Company to re-equip three famous Santa Fe streamliners—El Capitan, Chicagoan, and Kansas Cityan. Equipment includes full-length dome cars, deluxe coaches, baggage and mail cars. All are designed and built to offer a new standard of service to American travelers.

Republic ENDURO Stainless Steel construction is prominent throughout . . . in structural members, gleaming exteriors, and decorative effect.

Trust ENDURO equipment to retain that passenger-attracting shine and sparkle . . . indefinitely. Because ENDURO belongs to the alloy steel family—toughest of commercial metals—it is unsurpassed for durability and strength. Its hard surface defies daily wear, and supplies top resistance to the attacks of rust and corrosion. It is easy to clean and to keep clean. ENDURO is high in resistance to impact and fatigue. Its strength-to-weight ratio lets you use these qualities free from profiting bulk and deadweight.

Those are reasons why more and more roads are specifying Republic ENDURO Stainless Steel on new equipment orders. Republic will help you and your suppliers develop facts and figures. Write:

REPUBLIC STEEL CORPORATION

Alloy Steel Division • Massillon, Ohio

GENERAL OFFICES • CLEVELAND 1, OHIO

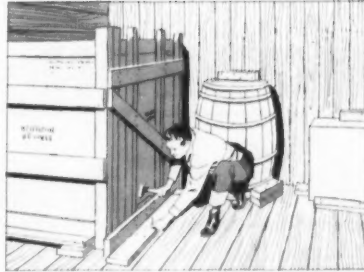
Export Department: Chrysler Building, New York 17, New York

**REPUBLIC
ENDURO STAINLESS STEEL**



Other Republic Products include Carbon and Alloy Steels — Titanium — Pipe, Sheets, Strip, Bars, Wire, Pig Iron, Bolts and Nuts, Tubing

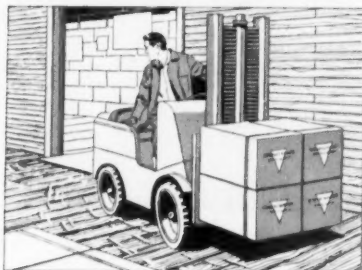
How nailing to steel maintains railroad progress



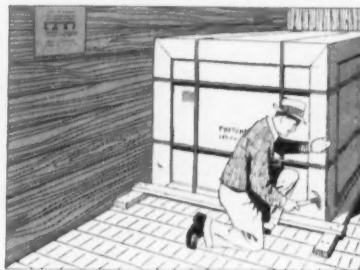
Over the years, freight cars have progressed, part after part, from wood to steel. But in floors, wood has persisted—since *nailability* is needed for the secure blocking of freight.



Each change to steel increased car strength and durability. Yet the floors, frequently needing repair or replacement, brought complaints from shippers, caused costly downtime.



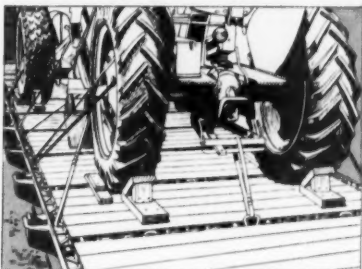
As the fork truck and other modern loading devices came along, new demands were imposed on freight car floors. Result—more maintenance—more cars out of service.



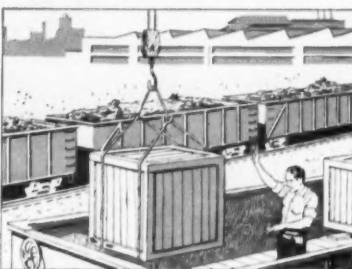
NAILABLE STEEL FLOORING, now in use in over 16,000 cars, solves these problems. N-S-F provides *nailability* with the advantages of steel to keep cars serviceable.



All the abuse of normal use just rolls off NAILABLE STEEL FLOORING. And like no other flooring, N-S-F, welded to the frame, actually adds strength at critical points of the car structure.



NAILABLE STEEL FLOORING provides the answer for flatcars, too. Used with built-in anchors for steel straps, wires, and other fastening devices, it assures maximum load security.



N-S-F in gondolas combines the durability of steel plate floors (not nailable) with *nailability* typical of wood . . . eliminates maintaining two types of cars.



Careful analysis of the advantages of this modern steel floor over a period of years will show how NAILABLE STEEL FLOORING more than pays for itself in operating economies.



NAILABLE STEEL FLOORING is made of low alloy N-A-X HIGH-TENSILE steel—remarkably strong, corrosion-resistant—formed into channels, and welded together to form a unique nailing groove. Nail is clinched in a grip of steel, yet is readily removed.

COMPLETE engineering and cost data available from Great Lakes Steel Corporation, Steel Floor Division, Ecorse, Detroit 29, Michigan. Sales representatives in Chicago, Philadelphia, St. Louis, Atlanta, Omaha, Denver, San Francisco, Montreal and New York.

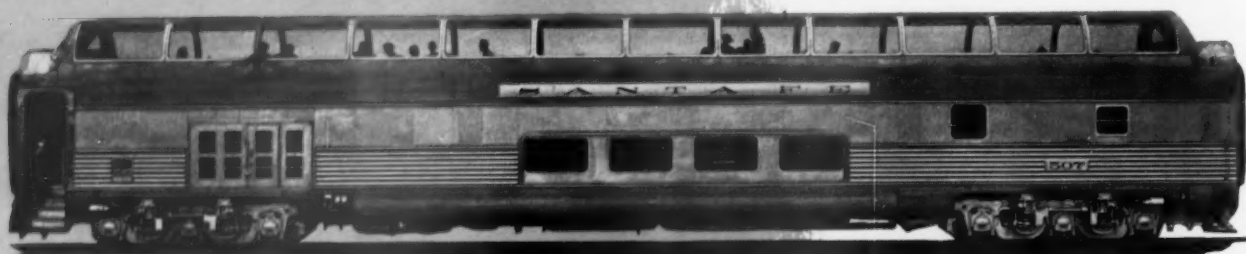
GREAT LAKES STEEL CORPORATION

NATIONAL STEEL CORPORATION

65-67-12-B

For Luxurious Travel

on the MODERN SANTA FE...

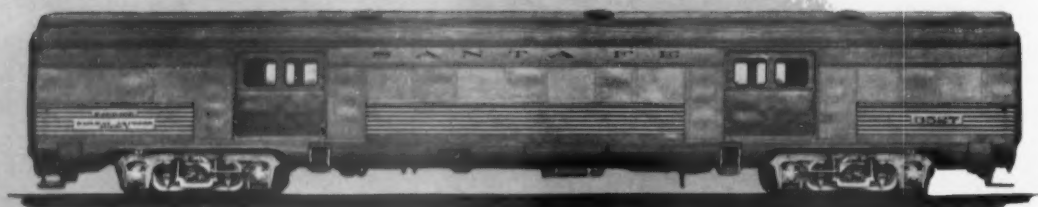


The full length Dome Car with 6-Wheel Outside Swing Hanger Type Trucks.

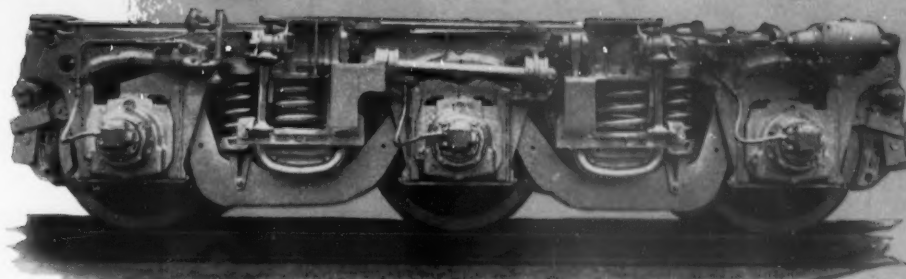
**Built
by
Budd**



with 4-Wheel Outside Swing Hanger Type Trucks.



GENERAL

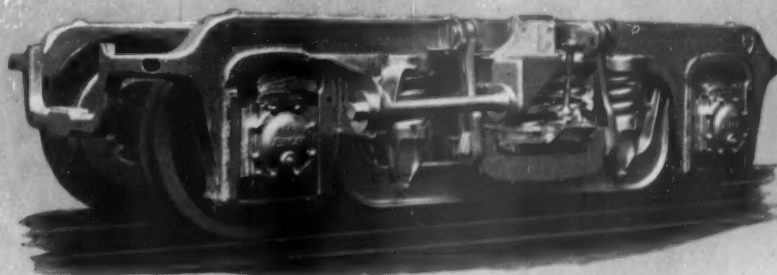


Commonwealth 6-Wheel Outside Swing Hanger Truck with Central Bearing.

Commonwealth

Outside Swing Hanger Type Trucks

and Central Bearings



Commonwealth 4-Wheel Outside Swing Hanger Truck with Central Bearing.

Dome cars, chair cars and baggage cars, built by The Budd Company for service in the Santa Fe Railway's new *San Francisco Chief*, *El Capitan*, *Chicagoan*, and *Kansas Cityan*, feature newest COMMONWEALTH Trucks with *Outside Swing Hanger Suspension* and *Central Bearings*. Of the most modern design, the dome cars and chair cars provide every passenger convenience, smooth, quiet riding and true travel luxury.

COMMONWEALTH Trucks with Outside Swing

Hanger and Spring Suspension assure better riding at all speeds with reduced car body roll. Swing hangers and bolster springs are on the outside of the truck, readily accessible for inspection. The Central Bearing eliminates truck shimmy, increases wheel mileage and requires no lubrication.

These latest design trucks assure improved travel comfort and substantially reduced upkeep costs. Order them to improve the riding of *your* present cars and specify them for new equipment.

STEEL CASTINGS

GRANITE CITY, ILL.

EDDYSTONE, PA.

*ANOTHER COLONNA BAR FOR THE SANTA FE
NEW FULL LENGTH DOME CARS. AN EX-
AMPLE OF THE SANTA FE'S EFFORTS TO
PROVIDE THE UTMOST IN SERVICE AND
COMFORT*

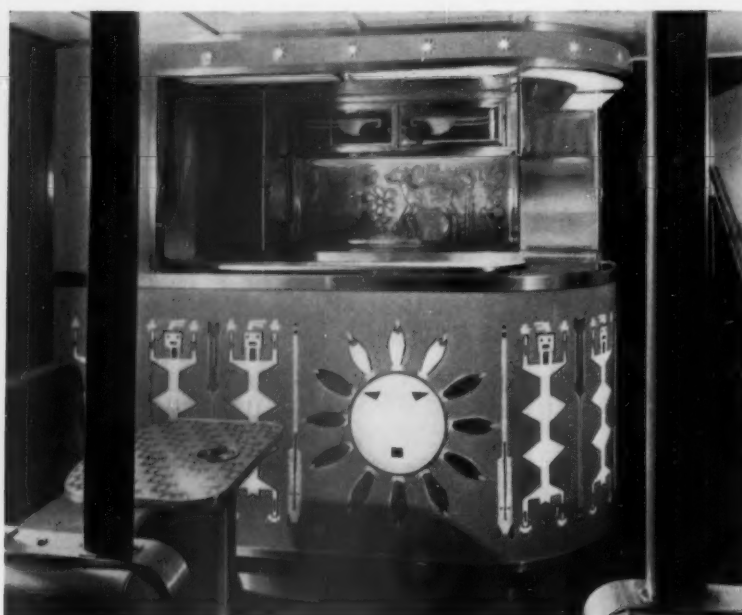


photo courtesy of The Budd Company



*THE DESIGN OF THESE OUTSTANDING BARS IS THE RESULT
OF THE CLOSE COOPERATION BETWEEN THE SANTA FE
RAILROAD, THE BUDD COMPANY, AND ANGELO COLONNA*

**ANGELO
COLONNA**

**Westmoreland & Boudinot Sts.,
Philadelphia 34, Pennsylvania**

The time for **HOT-BOX** **PREVENTION** is **NOW**



A.R. APPROVED
FOR UNLIMITED
USE IN INTERCHANGE

PLYPAK

WASTE CONTAINER & RETAINER

To eliminate hot-boxes resulting from lubrication failures, repack with PLYPAK at any repack period or when cars are shopped for classified repairs, rebuilding, or betterments.

PLYPAK is easily applied . . . slipped into the journal box by hand and set quickly in place with a packing iron.

A modern development, PLYPAK has established a record of proven performance . . . performance so convincing that PLYPAK has been extensively applied by several of America's largest railroads.

Your inquiry invited.

WAUGH EQUIPMENT COMPANY

420 LEXINGTON AVENUE • NEW YORK 17, N. Y.

CHICAGO—ST. LOUIS

CANADIAN WAUGH EQUIPMENT COMPANY, MONTREAL

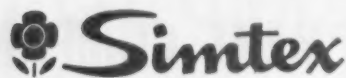


**Important symbol
of quality service
...smooth, lustrous
SIMTEX
napery**

***Specify Simtex—the only table napery,
domestic or imported, woven of combed cotton.***



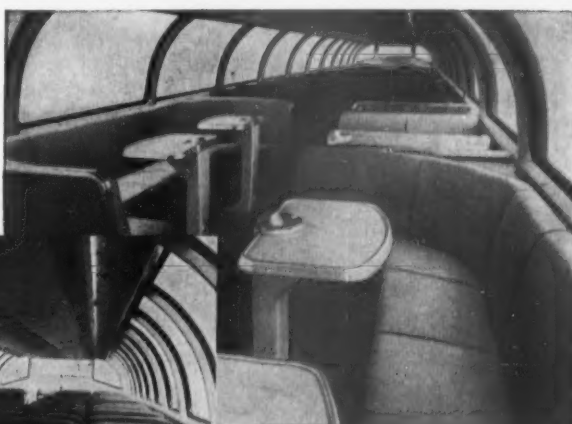
That extra combing process gives you napery that has no peer for handsome looks and serviceability. For as you know, combing the yarns removes all short fibers and traces of impurities. The result: a much smoother, stronger fabric. Simtex napery stays fresh longer, too, thanks to our exclusive finishing process. For its outstanding beauty and practicality, Simtex napery has long been the preference of better hotels, transportation systems, hospitals, schools, clubs, and restaurants. Today, Simtex is more important than ever to purchasing agents, who must offset rising operating costs by buying the most economical equipment possible, and still maintain high quality standards. This you can do—for at no increase in price, Simtex gives you *finer value than ever*.



MILLS, DIVISION OF SIMMONS CO., 40 WORTH ST., NEW YORK 13, N. Y.

Santa Fe's 14 New Dome Cars by Budd have luxurious Heywood-Wakefield Seating

The good looks and matchless comfort of Heywood's seating make it a wise choice for use *throughout* the 14 new Santa Fe dome cars to be put in service on El Capitan, the Chicagoan and the Kansas Cityan. In the upper dome of each car, 57 seats angled to permit perfect vision, and a built-in cocktail lounge give an unusual feeling of spaciousness; the lower level is exceptionally comfortable with its 28 seats. Heywood-Wakefield's famous "Sleepy-Hollow" offers the ultimate in travel luxury and smart appearance in these new cars. Let a Heywood-Wakefield representative give you details of the "Sleepy-Hollow" and the many other seats available to bring outstanding comfort to your passengers.



Heywood-Wakefield
Transportation Seating Division
Gardner, Mass.
Orillia, Ontario, Canada

In Canada:
Railway & Power
Engineering Corp., Ltd.,
Montreal

AMCRECO

PRESSURE

TREATMENT means **Longer Service Life** **Reduced Maintenance Costs**

In Amcreco cross ties, bridge timbers and piles, Lowry Process Pressure Treatment makes the big difference. The natural strength of the wood is preserved to assure long dependable service.

That's why Amcreco Products stand up for extra years under the ever increasing pounding of high speed rail traffic—have increased resistance to the effects of climate, insects and fungi. For lower overall costs and reduced maintenance, it will pay you to specify Amcreco next time.

Amcreco
Lowry Process
**Creosoted
Products**

- **Adzed and Bored Cross Ties**
- **Bridge Ties**
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AMERICAN CREOSOTING COMPANY

COLONIAL
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INCORPORATED



GEORGIA
CREOSOTING
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INCORPORATED

GENERAL SALES OFFICE—CHICAGO, ILLINOIS
18 FIELD SALES OFFICES TO SERVE YOU

Current Publications

PAMPHLETS

THE SALVATION OF THE RAILROADS, by W. L. Grubbs, vice-president and general counsel, Louisville & Nashville, 908 W. Broadway, Louisville 1, Ky. 52 pages.

This forceful, but easy-to-follow, analysis of basic railroad problems was inspired to a large extent by a *Railway Age* editorial which said in part, that: "The future of the railroads . . . very largely depends upon the degree to which the influential public can be induced to insist upon some fundamental changes in the political and regulatory framework in which the railroads have to operate"; and which then went on to say: "The story the railroads have to tell . . . is useless unless there are a lot of people who are trained to handle it skillfully."

It was to help provide such "training" for the L&N's local attorneys, its local surgeons, and the other members of its law department that this pamphlet was prepared. Because it was intended only for this limited use, copies are not available for general distribution, but Mr. Grubbs has advised *Railway Age* that he can supply a few copies to executives of other railroads wishing to consider preparation of a similar pamphlet for their own personnel.

1954 SURVEY OF DIESEL-ELECTRIC UNITS IN RAILWAY SERVICE. 4 pages. Simmons-Boardman Publishing Corporation, 30 Church st., New York 7, N. Y. \$1.

NEW 1953 INSTALLATIONS OF DIESEL-ELECTRIC LOCOMOTIVES. 8 pages. Simmons-Boardman Publishing Corporation, 30 Church st., New York 7, N. Y. \$1.

The first of these two publications shows number of diesel locomotive units, by horsepower ratings, in service, as of January 1, 1954, on 154 major U.S. and Canadian line-haul and terminal carriers, 71 of which were then fully dieselized. Total units listed number 24,614, with 33,337,382 aggregate horsepower.

The second publication lists by railroad, type, horsepower and builder 2,337 new diesel units placed in service during 1953 by 78 U.S. and Canadian railroads.

BOOKS

THE FASTEST HOUND DOG IN THE STATE OF MAINE. By John Gould; dedicated to the Bangor & Aroostook. 92 pages, illustrations. William Morrow & Co., 425 4th ave., New York. \$1.95.

This version of a justly-famous old Maine story may be the only book—aside, of course, from corporate his-

FOR WAYSIDE FUELING STATIONS



Cutaway view of typical element. The unit shown above measures only 27 in. in height yet contains 6,000 sq. in. of surface area.

Low in cost
... High
in efficiency

HERE'S positive, economical protection for your diesel fuel injection system. PUROLATOR Wayside Filters out-perform old style filters by a wide margin—and cost less unit-wise, because of fewer replacements. These Micronic filters provide high flow rates in a minimum of space. The pleated, accordion design of the Micronic filter element provides many more times dirt storage space. The unit shown at left measures only 27 in. in height yet contains 6,000 sq. in. of surface area.

You can pump 230 gals. a minute with minimum pressure drop. This means long life for the unit, low current consumption and less wear and tear on the pumps. Elements can be provided in any size to fit your existing equipment. You owe it to your diesels to get the whole story. Write, wire or phone for full particulars.

R

RAILROAD SUPPLY and EQUIPMENT Inc.

CLARK'S SUMMIT, PA. Phone Clark's Summit 6-7611



Where ground must
be kept **BARE** of
weeds and grasses...



BORASCU®

WEED KILLER



BORASCU Weed Killer does double duty—destroys vegetation—prevents new growth months afterwards! Use this low-cost material wherever vegetation is a hazard... about yards, buildings, storage areas and sidings. It's **SAFE**, nontoxic, nonflammable, won't corrode ferrous metals. It's favored, too, by more roads for use about timber structures than any other weed killer. They prefer the economy, safety, ease of application, and lasting effect of Borascu. Ask for a free demonstration on your road.

So Easy to Apply...

NO MIXING...
NO WATER TO HAIL...
NONPOISONOUS...
NONCORROSIVE...

Write for Literature Now!

PACIFIC COAST BORAX CO.

DIVISION OF BORAX CONSOLIDATED, LIMITED

630 SHATTO PLACE • LOS ANGELES 5, CALIFORNIA

tories—ever dedicated to a railroad company. And properly so—for without the Bangor & Aroostook the story could never have happened. That it really did happen would probably be stoutly maintained by every true "Down Easter," including the "BAR."

SHOWMANSHIP IN SAFETY. Illustrations. National Safety Council, 425 N. Michigan ave., Chicago 11. \$1.25 to council members; \$2.50 to non-members. Quantity prices on request.

The N.S.C.'s new book of attention-getting stunts and gimmicks wraps up in one package the best in safety promotional ideas. Loaded with schemes that help sell safety to workers in new and appealing ways, the book can provide a lift for any accident prevention program. It is illustrated with cartoons and contains more than 150 ideas for displays, demonstrations, stunts, awards and other interest-arousing devices. The book tells how to add sparkle to safety meetings, and how to sell employees on wearing protective equipment, and gives many other assists to the safety man in putting across his program.

FILMS

FRAGILE—HANDLE FEELINGS WITH CARE; CALL 'EM ON THE CARPET; IT'S AN ORDER. 12 minutes each, 16-mm, sound; also 35-mm sound slidefilm. National Safety Council, 425 N. Michigan ave., Chicago 11. Prices on request.

Featuring O'Grady, the safety skeptic from NSC's film, "A Gray Day for O'Grady," this three-film set of human relations training films tells how a foreman learns about people. "Fragile—Handle Feelings with Care" shows how a foreman learns to value and respect the feelings of his workers. "Call 'Em on the Carpet" shows the various methods foremen can employ to correct worker's faults without incurring ill will. "It's an Order" is a humorous film illustrating how supervisors should give orders so they are understandable and can be carried out efficiently by the worker.

NEW PERIODICAL

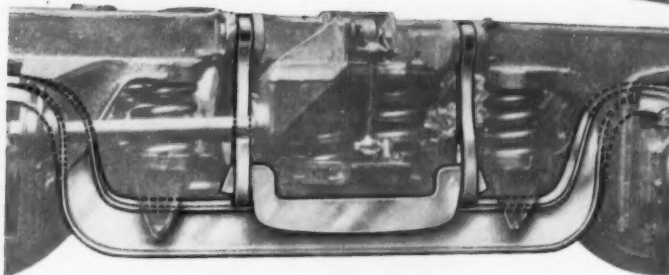
THE M.R.S. JOURNAL. Box 1769, Denver 1, Colo. \$1.50 a year.

This is a new bi-monthly tabloid-size newspaper for men who served with the Military Railway Service during World War II and in Korea. It is the official publication of the Military Railway Service Veterans. Contents include reminiscing letters from subscribers, photos of military railway operations in 18 countries, and stories and articles of interest to MRS men.

IN THE NEW *Streamlined Cars* NOT ALL OF THE *Beauty* IS ON THE SURFACE

Down underneath . . . in the truck assembly, there is another bit of metal working beauty . . . beauty from the standpoint of **DURABILITY, LIGHTNESS and SAFETY.**

Congratulations !



Partly hidden from view are the newly developed and urgently demanded "CANTON" I-Beam Equalizer Bars, whose advanced design cuts material costs and weight . . . practically in half.

CROSS BARS, SWING HANGERS, SIDE STEMS and other "CANTON" forged components, add to under-carriage service life and greater safety.

SANTE FE and BUDD COMPANY—on your latest and most noteworthy joint achievement, the presentation of new full-length dome cars for the famous "EL CAPITAN".

"TODAY"—the Western Traveler will enjoy smooth riding and all of the comforts and safety of home, in the most modern train that graces the scenic trails of . . . "YESTERDAY".

**THE CANTON DROP FORGING
AND MANUFACTURING CO.
CANTON 2, OHIO**

DROP FORGINGS FOR
PARTICULAR USERS
SINCE 1903



121 new Stainless Steel cars for the famous *"El Capitan"* and the

GREAT THINGS are happening this month on the Atchison, Topeka & Santa Fe. To provide the ultimate in travel comfort on its famous fleet of streamliners, and to create a fine addition to its fleet of Chiefs — the "San Francisco Chief" — the Santa Fe is taking delivery of 121 new passenger cars built of Stainless Steel.

These cars are the last word in design, decor and passenger convenience, and Stainless Steel adds greatly to their appeal. Their gleaming, lustrous beauty is an invitation to an enjoyable trip through

the great West. And it's a lasting beauty that requires little maintenance.

When Stainless Steel is used throughout, as in these cars, it acts as a weight-saver, too. It makes it possible to build cars that are relatively light in weight without sacrificing strength.

The makers of USS Stainless Steel are proud of these new additions to the list of Stainless streamliners that ride the nation's rails. They are additional evidence that the best bet for passenger appeal is Stainless Steel.

UNITED STATES STEEL CORPORATION, PITTSBURGH • AMERICAN STEEL & WIRE DIVISION, CLEVELAND
COLUMBIA-GENEVA STEEL DIVISION, SAN FRANCISCO • NATIONAL TUBE DIVISION, PITTSBURGH
TENNESSEE COAL & IRON DIVISION, FAIRFIELD, ALA. • UNITED STATES STEEL SUPPLY DIVISION, WAREHOUSE DISTRIBUTORS
UNITED STATES STEEL EXPORT COMPANY, NEW YORK

USS STAINLESS STEEL

SHEETS • STRIP • PLATES • BARS • BILLETS • PIPE • TUBES • WIRE • SPECIAL SECTIONS



4-1029

UNITED STATES STEEL





Santa Fe trains including

new *"San Francisco Chief"*



SOME OF THE 121 new Stainless Steel cars delivered to the Santa Fe are shown here under construction in the Red Lion plant of The Budd Company, Philadelphia, Pa.



HERE IS THE ARTIST'S CONCEPTION of the "El Capitan" as it travels the historic Santa Fe route. To give passengers a panoramic view of the wonderful West, it includes a dome car of The Budd Company's new, distinctive full-length design.

***MAKING A
100,000
MILE
RUN...
STANDING STILL!***

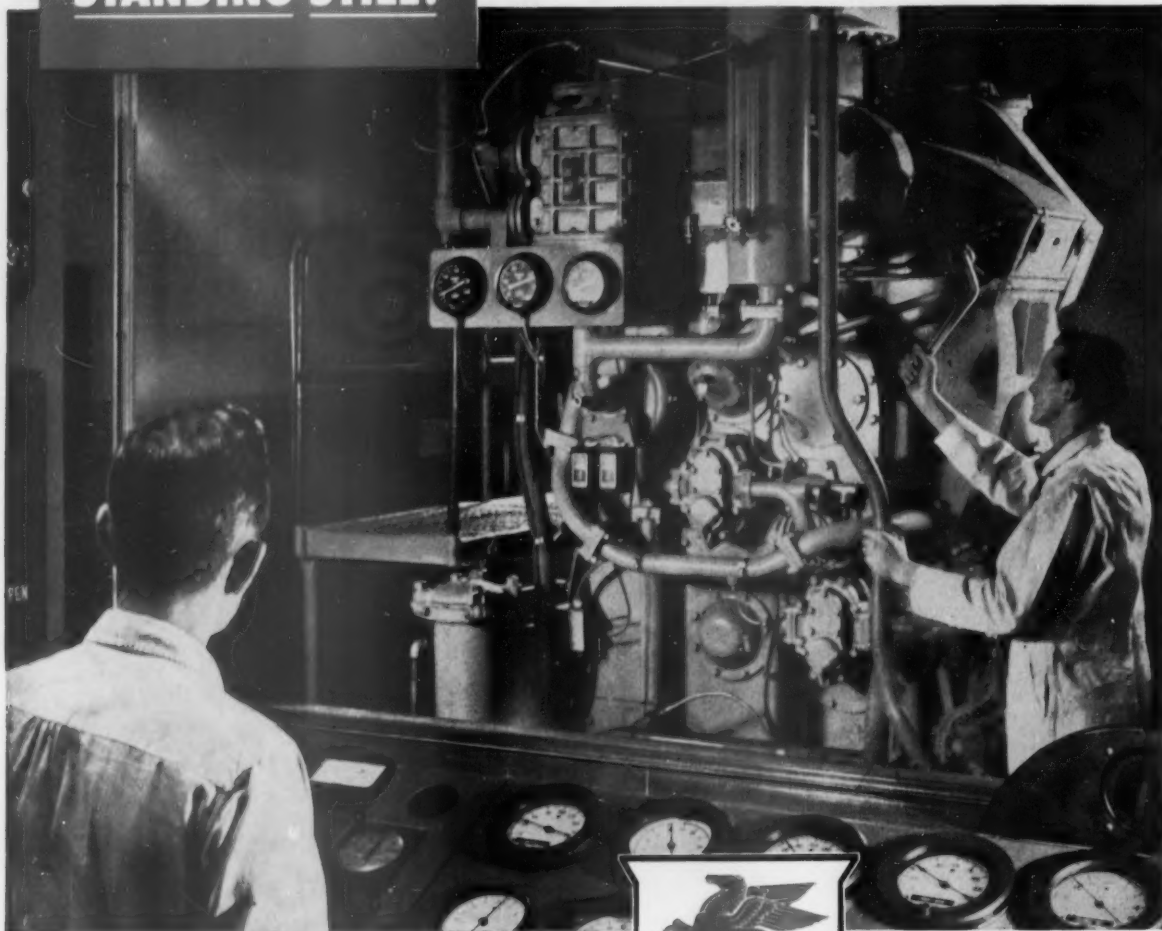
New locomotive-type test engine helps Socony-Vacuum continually improve your Diesel lubricating oils!

With this special engine, Socony-Vacuum engineers can test—in the laboratory—the performance of lubricating oils under the varying loads, speeds and temperatures encountered by Diesel locomotives in actual runs. This is just one of the many ways Socony-Vacuum cooperates with operators and engine builders to help solve today's Diesel operating problems.

Experience from such cooperative research efforts—plus exhaustive field evaluations—has produced Diesel lubricating oils that keep engines clean—keep costs down . . . oils which are proving eminently successful on many major roads today.

Why not use our experience—and proved products—to improve *your* operations?

SOCONY-VACUUM OIL CO., INC., Railroad Division, 26 Broadway, New York 4, N. Y.



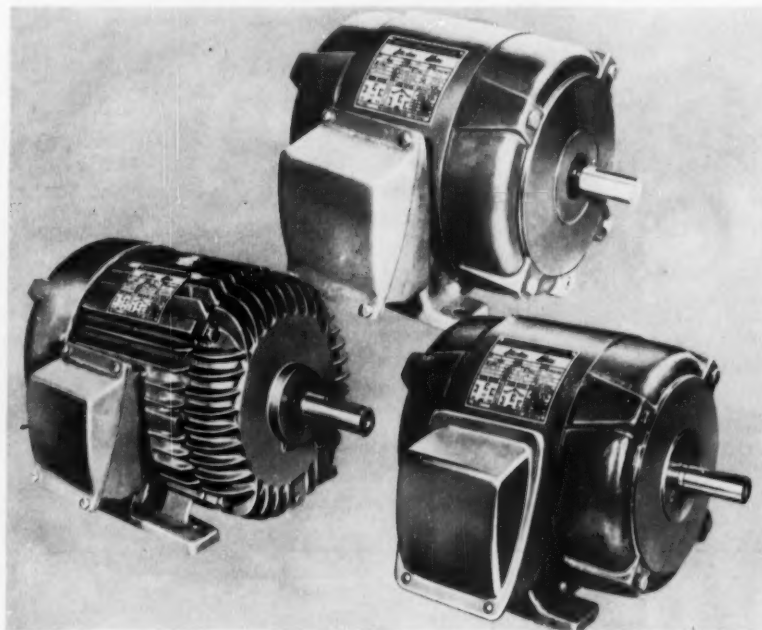
SOCONY-VACUUM



*Correct
Lubrication*

WORLD'S GREATEST LUBRICATION KNOWLEDGE AND ENGINEERING SERVICE

What's New in Products



New Westinghouse Induction Motors

"Life Line-A" described as smaller and better, conforming to new N.E.M.A. specifications

A new line of induction motors, the Life Line-A, is announced by the Westinghouse Electric Corporation, Pittsburgh, Pa. The manufacturer claims to offer users longer motor life, greater flexibility in application, and higher reliability as well as decreased size.

The motors are described as having improved ventilation, better insulation, a more efficient and better protected bearing and are quieter and smaller per horsepower, conforming to the new N.E.M.A. standard dimensions. They are available in three enclosures (totally enclosed—fan cooled; totally enclosed non-ventilated; and drip-proof)—as shown left to right in the illustration.

Wire, coil, dip, and cable insulations are all new. The Bondar wire insulation is a synthetic resin of high thermal endurance, which is claimed to have a life of over three times that of other wire insulations now in use—this increased life being obtained without sacrifice of dielectric strength. Motor coil insulation is a combination of Mylar polyester film and rag paper that has a dielectric strength four times that of varnished cloth and a

heat endurance three to four times as great.

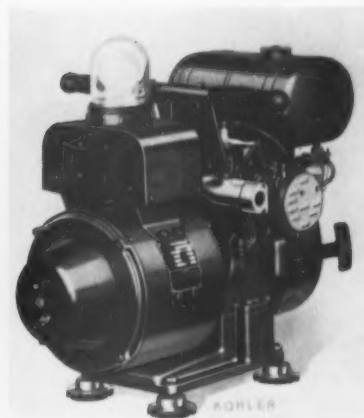
The Bondite dip insulation, which insulates the entire wound stator, is varnish with silicone. It has, at elevated temperatures, a life of 170 per cent of the previously used dip insulation. By incorporating the silicone into the varnish a permanent, water-repelling coating is obtained. The cable insulation, a lacquered glass braid covering, has an operating temperature of 75 deg C compared to 60 deg C for previously used cable insulation.

The ventilation system on the drip-proof motor has been improved so that it is now suitable for both indoor and outdoor use and for all applications where a totally enclosed motor is not required. The ventilation system is a straight through design with the ventilation openings located in one quadrant of the rim of the end bracket. This location protects the motor from overhead drippings regardless of mounting position.

The motors have what is called a four-way bearing seal, with two seals on each side of the bearing. The inner seal, which serves no other purpose, is stationary and is attached to the

outer bearing race. The outer seal rotates and is attached to the inner bearing race. It acts as both seal and flinger to throw off any foreign particles attempting to enter the bearing.

The frames of all the Life Line-A motors are of cast iron. All finishes are corrosion resistant •



Portable Power Plant

An improved portable electric plant said to be especially adaptable for the operation of such power tools as saws, drills, tampers, pipe cutters and threaders and floodlights has been announced as Model 1.5 M25 by the Kohler Company, Kohler, Wis.

The introduction of the new Kohler K90 air-cooled engine, which delivers 3.6 hp at 3600 rpm is said to provide ample engine power for the generator rating with a reasonable overload for intermittent duty. There are four plug-in receptacles located just beneath the pilot light. The attached fuel tank has a capacity which will permit 3 hours of operation at full load. The unit weighs 130 lb and is equipped with convenient carrying handles. A handy two-wheel cart is optionally available for easy portability •

House Trailers For Mobile Camps

In recognition of the increasing interest on the part of railroads in the use of house trailers for accommodating traveling crews, the Morrison Railway Supply Corporation, Buffalo, through its International Equipment Division, has announced the development of a series of four such units designed especially with railroad requirements in mind. As a preliminary step in this new venture the company

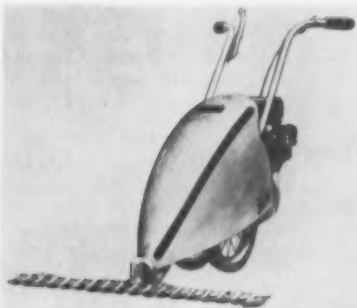
More New Products

has acquired the assets of the Bellaire Trailer Company.

There are four types in the series: (1) A single unit with living, dining and cooking facilities and sleeping quarters for crews up to four men; (2) a dormitory unit with upper and lower bunks to accommodate up to eight persons, complete with lockers, washroom, shower and toilet; (3) a single unit comprising a complete kitchen; and (4) a dining and recreation unit designed to accommodate up to 22 persons.

Combinations of these four basic units can be varied in any manner to suit the needs of the crew or crews to be served. If desired, they may be hooked up in series. Through use of these "mobile camps," the manufacturer claims that maintenance and construction crews will be able to live in close proximity to their work, and, when the job is completed, move on to the next site without the complications and expense of rail moves.

A unit for mobile camp development and construction has been set up by Morrison at Buffalo. A questionnaire has been sent to 350 top railroad officers asking for their comments on the use of this type of facility and on the proposed designs.



Improvement to Power Scythe

An improved power scythe designed to cut weeds, brush and tall grass has been announced by Jari Products, Inc., Minneapolis, Minn. According to the manufacturer, the new scythe follows the ground contour closely, operates on slopes and in rough places, and will mow close to trees, posts and buildings, and under fences and shrubs.

The mower is equipped with a 36-in. sickle bar and is powered by a four-cycle air-cooled gasoline engine rated at 1½ hp. It is said the engine will run a full eight-hour day on five quarts of gasoline. A twin ballbearing driveshaft is incorporated in the improved model, and power transmission to the sickle bar is by means of a V-belt from the drive-shaft pulley. A convenient lever on the handle bar engages the wheels for propulsion •



Rope Crowd

An alternate rope crowd front, featuring a box-section type boom with large diameter boom-point sheaves and cast-steel boom foot, has been announced by American Hoist & Derrick

Co., St. Paul, for its Model 375 ¾-cu.-yd shovel.

The adjustable variable pitch angle of the dipper can be changed to suit the operator simply by removing one pin and replacing it at a new angle, the manufacturer points out •



Power Track Drill

An improved Buda Model "P" power track drill has been announced by the Buda Company, Harvey, Ill. This drill is powered by a Briggs & Stratton Model 6R6, 1¾-hp 4-cycle air-cooled gasoline engine equipped with a ½-gal gasoline tank and rope starter. A welded gear housing protects the internal gears.

The unit is equipped with an adjustable base and "locator rods" which permit adjustment of the drill from

either a ground position or from the top of rail. A long over-clutch hook has been provided with a spread of 15 in. between the hook and the drill to permit drilling at filler blocks of switches and guard rails in track. A redesigned sleeve on the drill spindle allows a single spindle assembly to handle all flat drills from 7/16 in. to 1 9/16 in.

The drill is designed for one-man operation and weighs approximately 140 lb when not equipped with locator rods •



Keeping Wheels Turning *Cuts RE-Turning!*

Turning wheels are *earning* wheels. When they're rolling on the track, they're playing their part in paying a return on the money invested in the equipment. When they're being RE-turned it's a costly operation.

There's a practical way to keep wheels *off* the lathes and *on* the tracks . . . with the Westinghouse AP Mechanical-Pneumatic Decelostat® Controller. At the first hint

of a slip, the Decelostat Controller momentarily relieves braking pressure . . . permitting wheels to regain train speed . . . then, braking pressure is immediately built up to train level.

Because braking pressure is relieved the instant wheel slip *starts* . . . the slip is arrested *before* it can develop into a *slide* . . . and you save the cost of many flat wheels.

*Brakes are Basic
to
Railroad Progress*

Westinghouse

AP mechanical
pneumatic

**DECELOSTAT
CONTROLLER**

✕ Westinghouse Air Brake Co.
AIR BRAKE DIVISION
WILMERDING, PA.

IT'S NEW RIGHT DOWN TO ITS 60-CYCLE SUPPLIED BY A CATERPILLAR

Santa Fe's luxurious new full-length dome cars presented a special power problem to engineers of the Budd Company, which built them.

Keeping 103 Santa Fe passengers in each car completely comfortable as they whirled first through mountains and then through desert, required much more than the normal 30-KW load. Besides the most modern of lighting systems and a 20-ton air conditioning unit, there were such extras as electric dumbwaiters.

The Budd Company and the Santa Fe wanted a power package that was dependable, adjustment-free and at the same time stock equipment so parts and service would be readily available everywhere. Since car space was limited, size and weight of the unit had to be held to a minimum.

Caterpillar satisfied all requirements with the powerful D315 self-regulated Electric Set. Powered by a 70-HP Cat* Diesel Engine, the 220-volt, 3-phase, 60-cycle AC generator develops 40 KW. The entire package weighs only 3650 pounds!

Alternating current equipment of this size is something new to American railway passenger cars. Budd engineers found some immediate advantages. Motors, wires, conduits and cables

all could be smaller. On top of that, they found this Caterpillar Electric Set is odorless, practically vibration free and has a low noise level.

The compact electric set in each full-length dome car powers the unique fluorescent lighting system and an air conditioning unit large enough to control the temperature in seven average-size homes.

All this power is produced by a self-regulated unit which completely eliminates elaborate, complicated switchgear and electronic devices. And because Caterpillar has dealers and supply depots in all parts of the country, service and parts are immediately available anywhere at any time.

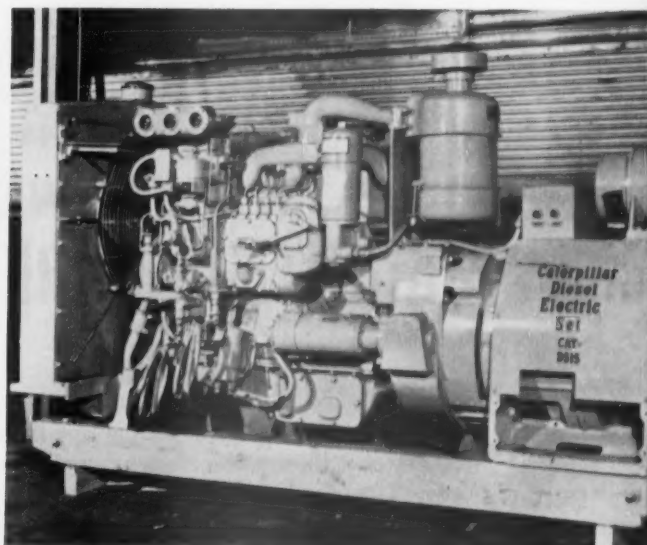
Caterpillar engineers, working with engineers of the Santa Fe and the Budd Company, have pioneered an important advance in modern, progressive railroading through the use of AC, self-regulated electric sets. Specify Cat power on new equipment orders... leading manufacturers can supply it in locomotives, cars and other railroad equipment. And, your Caterpillar Dealer, with his complete line of off and on track equipment, is always ready to help you.

Caterpillar Tractor Co., Peoria, Illinois, U. S. A.



ALTERNATING CURRENT— DIESEL ELECTRIC SET

Each of Santa Fe's new full-length dome cars needed its own dependable, adjustment-free electric set. That's how a new idea was created for American railroads.



THIS CAT D315 SELF-REGULATED ELECTRIC SET pioneered a new idea for American railroads. It provides 40 KW of alternating current for Santa Fe's new full-length dome car. This small, independent unit permits the use of smaller motors, wires, conduits and cables.

LIGHTING AND A 20-TON AIR CONDITIONER run on power provided by the D315 self-regulated Electric Set. The indirect fluorescent lighting in the upper lounge has a "starlight effect." It provides lighting without restricting passengers' view outside the car.

CATERPILLAR*

*Both Cat and Caterpillar are registered trademarks—®

**SPECIFY CAT POWER
FOR MAXIMUM
AVAILABILITY**



The Budd-built new full-length dome lounge car sets a new standard in railroad luxury.

119 new Santa Fe cars wired with OKONITE-OKOPRENE



Expanding its famous high-quality service, the Santa Fe is adding 119 new Budd cars to the El Capitan, Chicagoan, Kansas Cityan and the new San Francisco Chief. The coaches, baggage and mail cars, and the full-length dome lounge cars are all wired with Okonite-Okoprene, the service-proved quality car wire.

Unique electrically operated features make the new two-level lounge cars the height of luxury. The upper lounge service bar is supplied by means of an electric dumbwaiter. Indirectly illuminated table tops give soft lighting; the upper level "Starlite" lighting system does not obscure outdoor views. Heating and air conditioning, carefully planned by Budd

engineers, make the interior completely climate controlled. Electric power for the full-length dome cars is supplied by a 40-kw. 220-volt, three-phase, a-c, diesel-driven generator.

Santa Fe and over 100 other Class I roads use Okonite-Okoprene cables in their systems for yard wiring, signal circuits and diesel electric locomotive wire, in addition to car wire. The composite mold-cured insulation and sheath provides the electrical strength and mechanical toughness that has given this construction its reputation of service proved reliability.

Ask your Okonite representative for information on Okonite-Okoprene, or write for Bulletin RA-1078 to The Okonite Company, Passaic, N.J.



OKONITE OKONITE SINCE 1878 *insulated cables*

2329

A Militant Program to Hold And Attract Freight Traffic

On every hand there appear heartening signs that the railroad industry is going full throttle into the second phase of its battle to regain traffic and status. The first phase was the postwar physical program of rebuilding plant. That campaign was accompanied by a difficult, slow, and often unsuccessful fight to get general rate increases large enough and frequently enough to keep abreast with galloping inflation. The plant upbuilding program continues. But full general-ship is now being focused on Phase II—to establish prices which will exploit that plant to fuller capacity.

New rates on roofing material applying in the Southeast, of revolutionary significance, were put into effect on March 16. Elsewhere in this issue appears a commentary on the Eastern railroads' new concept of "differential charging" by E. V. Hill, who coordinates the deliberations of the top traffic men in that territory. The new rate-making idea is "dangerous," Mr. Hill admits, "but there is no alternative." He quotes one president as saying that, after establishing the new competitive rates, "If we go broke, it will be from hauling freight, and not because we price ourselves out of business."

The Eastern roads' new program departs from many of the pricing principles which have long governed the regulators—and the actions of railroads' rate-makers themselves. It neither observes nor preserves rate relationships as between commodities, localities, shippers or receivers of individual commodities. As a practical matter, these relationships have been destroyed already—by incursions of competing transportation into the symmetrical railroad rate structure. In the new "differential charging" concept, the railroads, like their competitors, no longer hold themselves out to keep everybody in business, to guarantee every producer parity of market with every other, or to preserve the relative position of competing commodities.

Thus, for example, new rates on selected iron and steel products, which are scheduled to go into effect on March 26, prescribe lower charges for certain semifinished products than for scrap iron—a basic material in the making of iron and steel.

The former are desirable freight and sought by the truckers. The latter is less desirable and is not so eagerly pursued.

As recently as a decade ago, practically any railroad rate man would have rejected the very thought that a finished product should take a lesser rate than a basic inbound component; the idea would have violated his idea of "relationships." Today the industry is coming to recognize that it no longer has the power to act like a monopoly, even in theory, and is taking the steps necessary to get the business it can handle economically.

Practically every proposal for a change in railroad rates on individual commodities 25 years ago was initiated by shippers. Today, virtually every one is brought up by the railroads themselves. Furthermore, until a few years back, most rate proposals were introduced "from the bottom up"—by the men whose routine it is to call on the shippers. They were, on the whole, unrelated to any broad plan of action—however closely the final results were related with the rate structure. Today, most proposals come "from the top down"—from committees of top traffic officers who study whole movements of specific commodities and determine what prices have to be set to get the business.

Gathering data for overall commodity rate revisions calls for almost as extensive bush-beating as does—say—the gathering of proxies with which to control a railroad. In many cases the traffic manager of the producing industries does not control the traffic; that is the prerogative of numerous receivers. In setting the new competitive commodity rates, the railroads have to use their traffic staffs widely at many points to find out the requirements of the trade and to help establish the rates which will win the traffic. In the case of a recent revision by the eastern roads, more than a thousand calls on receivers were made.

Regulatory and legal complications have not all been resolved, of course. Nevertheless, the railroads are obviously embarked on a revolutionary program of realistic, as opposed to idealistic, rate-making—since bitter experience has thoroughly proved that the ideals (however justifiable they may have been originally) simply will not channel the traffic economically. The fact that there is so much traffic which is not moving by rail, and that the basic costs of the railroads entitle them to a large chunk of it, justify substantial optimism. And, if there is a risk, it is better to go broke hauling freight than by "sitting out" the greatest period of growth the country's economy has ever witnessed.



Upper-level lounge in the Santa Fe's . . .

Full Domes for Coach Passengers

Eight cars with dome seats for 75 persons built by Budd for "El Capitan," the "Kansas Cityan" and the "Chicagoan"—Attractive lounges in upper and lower levels—Forty-five de luxe coaches built for transcontinental service



COACH SEATS in the dome accommodate 57 persons.



DECORATIONS suggest ancient Southwest civilization.

Fourteen full-length dome cars of two types, in which there are no revenue seats, are being built for the Atchison, Topeka & Santa Fe by the Budd Company. Eight have a nurse's room, bar and lounge seating 28 persons on the lower level. The other six cars are designed with dormitory facilities for 12 crew members and a bar and small lounge on the lower floor. The eight dome-lounge cars are for the service of coach passengers on "El Capitan," the all-coach train between Chicago and Los Angeles, and the "Chicagoan" and "Kansas Cityan," coach trains between Chicago and Oklahoma City.

The Santa Fe order for passenger-train cars placed with Budd in 1952, of which the dome cars are a part, includes 45 chair cars each with seats for 48 passengers, all of which have been delivered, and 60 head-end cars, of which 10 are post-office cars and 50 are baggage cars—a total of 119 passenger-train cars. Of the baggage cars, 10 have facilities for messenger service.

The Full-Length Dome Cars

The outstanding feature of the dome cars is the upper level of the three-level car, which provides unobstructed high-angle vision through the curved roof for a total of 75 passengers. The coach section of the dome level, which occupies about 54 ft at the head end of the car, accommodates 57 persons in double and single non-reversible seats. The double seats are angled 10 deg toward the car sides. The seats are spaced 37-1/8 in. between centers.

At the rear end of the upper level is a lounge section about 21 ft long. Here are seats for 18 in a pair of facing seats and two seven-person built-in lounge seats facing toward the car center.

The lounge tables present an unusual appearance in daylight as well as at night. Imbedded in the translucent Lucite tops are feathery sprays of Australian seaweed. At night, when the overhead lights are turned off for passengers to observe the scenery from the coach seats forward, a light under the fixed ash tray above each table support glows through the Lucite to produce a sunray effect. This is shown in one of the illustrations.

An electrically operated dumbwaiter in an alcove at one side of the aisle communicates with the bar in the lounge on the lower level. A small cupboard and counter are at the side of the alcove for the use of the waiter.

In the lower level of the car a lounge, which will accommodate 28, has a fully equipped writing desk and magazine racks built into the backs of the lounge seats. A bar is at the rear end of the lounge. An unusual feature of this room is the four transparent safety-glass panels which extend to the ceiling from the backs of adjoining card sections to divide the room into three sections. Each panel consists of a plastic sheet faced on both sides with safety glass. Etched and hand painted in full colors on each plastic center is a Katchina doll authentically illustrating an idol worshipped by the Hopi or Navajo Indians before the days of the white man. These panels are edge-lit from below by fluorescent lamps placed between the backs of the adjoining sections which cause the colored figures to glow brilliantly without otherwise lighting the room.

Other decorative features include a repousse of antique copper on the forward wall of the lounge and another on the wall behind the bar. The light fixtures on the forward

ASSIGNMENT OF NEW COACHES

All of the 45 new coaches have been assigned to the Chicago-Los Angeles service. They have replaced existing lightweight cars on the all-coach "El Capitan" and have been added to the formerly all-Pullman "Chief" (which added coach service and went on a schedule of 39 1/2 hours last January 10).

The lightweight reclining seat coaches displaced from "El Capitan" have been placed in several different services—among them being the Northern and Southern sections of the "Grand Canyon" (which operates between Chicago and Los Angeles with one section going via La Junta, Colo., and Albuquerque, N.M., and the other via Amarillo, Texas). Another group of these coaches has been assigned to the "Texas Chief" and the remainder have been assigned miscellaneous main line services subject to change as traffic conditions warrant.

Of the entire order of new cars, 30 have been assigned to "El Capitan" and 15 to the "Chief."

wall and above the bar are studded with plastic Indian sun designs.

The carpets laid in the lower lounge and in the aisle of the upper level are a prickly pear cactus design in brown, beige and turquoise. The same pattern in lighter tones of the same colors is laid under the seats in the upper level. The coach seats in the dome are upholstered with foam rubber and covered with rust super needle point. The lounge seats are covered with elastic straw-colored Naugahyde with coral piping of the same material. This material, in the same and reversed colors, is used in the lower lounge. Beige, turquoise and Indian red are used in various arrangements on the walls and ceilings of both levels. The effects achieved are seen in some of the illustrations. A "starlight" effect is produced by small perforations in a hit-or-miss pattern in the metal sides of the lighting coves on both levels.

Each coach seats 48 passengers. At one end is a women's lounge. At the other end are two men's toilets and washrooms, one on each side of the center aisle. The seats are Dwight Austin rotating reclining type with leg rests, adjustable head rests, movable center arms and double movable foot rests. The seats are completely upholstered in foam rubber and are covered with super needle point. Colors in the decorations are the same as those in the dome cars and the passenger compartment floor is covered with a carpet woven in the prickly pear cactus pattern in the dark tones of the colors used in the dome cars.

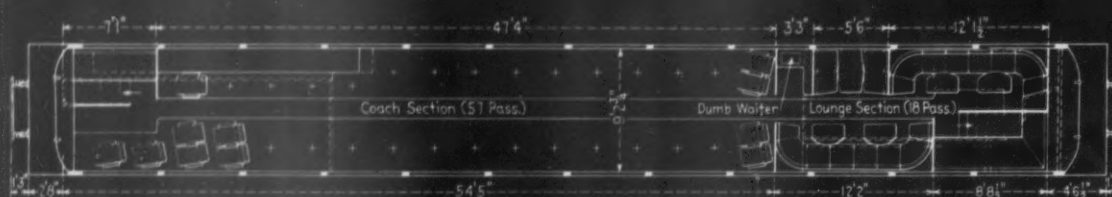
The seat coverings are turquoise. This color is repeated on the side wainscoting and on the end partitions. Walls above the windows and the ceiling are beige with a stripe of Indian red below the luggage racks. Window shades are Indian red. Large repousse medallions in silver finish are placed on the end partitions. The piers are finished with Formica panels on which are stylized Indian figures.

All of the cars are of modified girder design, the stainless-steel structural members being joined to the stain-

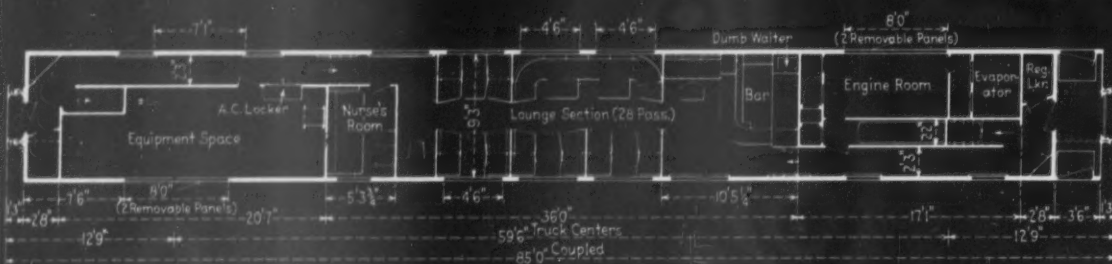
Floor plans of the Santa Fe's Budd-built cars



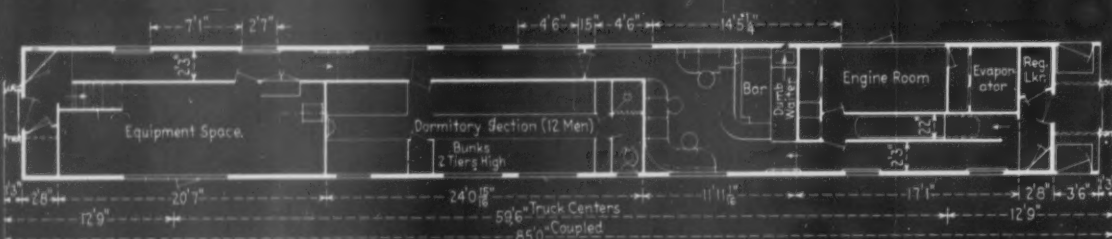
Interior arrangement of the 48-passenger chair car.



Floor plan of the upper level of the dome cars.



The lower level of the dome-lounge cars.



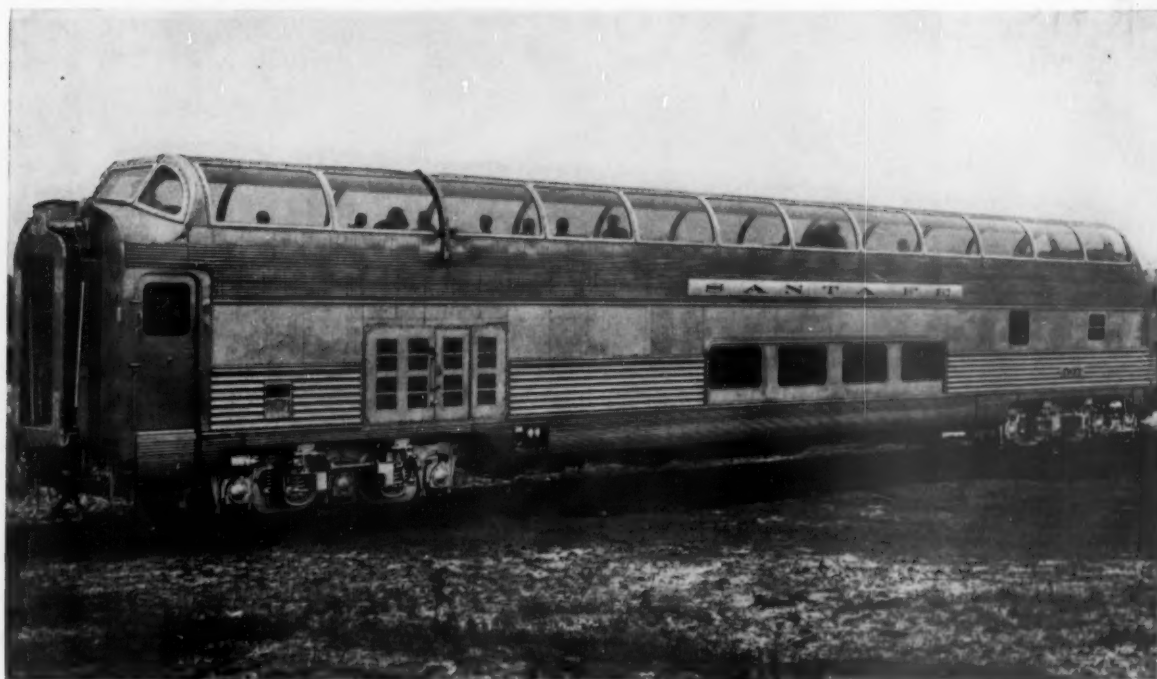
The lower level of the dome-dormitory cars.



A baggage car equipped for messenger service.

less-steel roof, side and floor closures by the Budd Shot-weld process. The end underframe unit consists of body bolster, draft-sill extensions, and the draft-gear pocket fabricated of low-alloy high-strength steel by welding, and welded to the stainless-steel structure. An alloy cast-

steel end sill and coupler-carrier support to which the collision posts are welded is joined to the outer end of the underframe. Sides below the windows are stainless-steel sheets with wide corrugations. These are welded to the posts and are finished on the outside by seven nar-



FULL-LENGTH dome-lounge car. Pipe carrying diesel exhaust follows curve of dome past windows to roof.

row panels which are inserted in the corrugations of the side sheets. Flat sheets are employed between the belt rail and roof.

The floor structure consists of closely spaced transverse members of light-gage stainless steel. Extended bottom flanges of the members form the subfloor. The major feature of the end structure is the collision posts. These are deep sections of stainless steel fastened at the top into the reinforced end roof structure at the outside purlines and welded to stubs which extend up from, and are welded to, the cast-steel end sill. The stubs reinforce the bottoms of the posts against crushing.

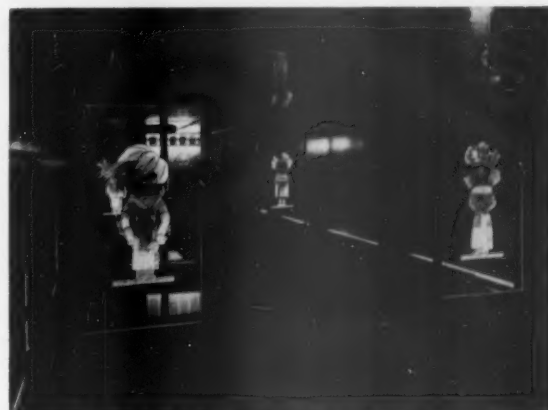
In the dome cars a modification of the normal structure is required to accommodate the three floor levels. The overall height of these cars is 15 ft 6 in., about 2 ft higher than single-floor cars. Over the six-wheel trucks at the ends of the car the floor is the usual 51 $\frac{3}{8}$ in. above the rail. The high floor in the upper level (at the sides under the seats) is 9 ft 10-3/16 in. above the rail, and the lower level between the trucks is 27 in. above the rail.

The tail pieces of the low-alloy high-strength steel end underframe inboard of the double bolster, which forms a part of it, are extended down and attached to the end of the shallow center sill at the end of the lower floor. At this point a vertical column, approximately 20 in. square, joins the tail pieces of the end underframe and the lower level center sill to the upper-level floor structure. This distributes part of the longitudinal forces into the upper floor to which considerable column stiffness is imparted by the difference in elevation between the floor under the seats and in the center aisle. On the lower-level side of each vertical column is a transverse structural partition which takes vertical load into the car side frames.

The bolsters and the crossbearers at the ends of the



STRIKING EFFECT is produced by the lights in the translucent table tops in the upper-level lounge.



EDGE LIGHTING illuminates the colorful figures in the plate-glass panels of the lower lounge in the dome cars.



ONE OF 45 new 48-passenger chair cars ordered from the Budd Company by the Santa Fe.

lower-level floor are securely tied into the car side girders. Longitudinal center-sill loads are partially distributed to the car sides by the transverse floor members and under-floor closure which are welded to the draft-sill extensions and tail pieces of the end underframe at each end.

Cross-members, combined with transverse vertical braces between the backs of adjoining card section seats in the lower-level lounge, serve to stiffen the shallow center-sill and to stabilize the side sill at the normal floor level. The upper-level floor, of stiffened stainless-steel sheets and plywood, is supported at the side walls and by the top flanges of Z-shaped longitudinal beams which form the sides of the center aisle. The aisle floor is supported on the lower flanges. These beams are supported by stanchions extending up from the normal floor in the equipment space and by transverse beams and stanchions at the glass partitions in the lower-level lounge.

Side corridors, reached by steps from each end of the lower-level lounge, lead to the ends of the car on the normal floor level. The ceilings over these corridors extend into the dome space. They displace seats for five at one end and are concealed under one of the side lounge settees at the other. Stairs lead up to the dome from each end of the car.

The low-ceiling space on the normal level at the ends of the car is used to house equipment usually carried underneath. At one end is the air-conditioning equipment, including two evaporators and blowers. At the other, is the power plant with electrical equipment and one evaporator. These spaces are accessible from the corridors and, through removable panels in the sides of the car, from outside as well.

LENGTHS AND WEIGHTS OF THE BUDD-BUILT CARS

	Length, coupled, ft.-in.	Ready to run weight, lb	Loaded weight, lb
8 full-length dome-lounge	85-0	190,970	207,070
6 full-length dome-dormitory....	85-0	191,500	206,400
45 chair	85-0	124,160	131,860
10 messenger baggage	73-10	96,540	166,540
40 baggage	73-10	95,360	165,360
10 60-ft postal	63-2½	102,200	122,000

Insulation, both in the coaches and the dome cars, is Ultralite Fiberglas and, with one exception, is 3 in. thick throughout. In the side walls of the upper level of the dome car the insulation is 2 in. thick, faced with aluminum foil to accommodate panel heating.

Windows in the lower-level passenger space and in the passenger compartment of the coaches are the double-glazed breather type, arranged for glazing from the inside. Glass is ¼ in. Solex non-tempered polished plate glass on the outside and ¼ in. Solex laminated non-tempered glass inside. The curved dome sash are also of the breather type, glazed from the outside. Both inner and outer glass in these sash are Solex, the outer pane ¼ in. thick, partially tempered, and the inner pane a sandwich of two plates of ⅛ in. non-tempered glass and a ⅛ in. sheet of plastic. Outer panes on the end windshield windows are increased to ⅜ in. thick. The two panes in the center windshield panel at each end of the dome are separated to form the air duct leading up to the distribution duct over the ceiling.

Ceilings and walls, in general, are lined with aluminum sheets, the unexposed sides of which are covered with sound-deadening felt. Exceptions are the pier panels in the passenger compartment of the coaches, which are Formica, and the equipment spaces of the dome cars, which are carbon-steel sheets. In the back-bar area of the lower-level lounge the carbon-steel sheets are backed with felt and, where exposed after the bar equipment is installed, covered with stainless steel.

At the front end of the upper level of the dome cars, in front of the first double seat, the wainscoting is Rigid-tex metal painted to suit the interior color scheme. After painting, the high spots of the pressed pattern are polished down to the bare stainless steel. This produces a sparkling decorative effect with the color in the recesses of the pattern protected from scuff marks. Ceilings in the passenger compartment of the coaches and in the lower level of the dome cars have Multi-Vent panels under the air-distribution duct.

In the dome cars the longitudinal partitions between the corridors and equipment spaces are built of carbon-steel tubing faced with aluminum or stainless steel on the passenger side and on the equipment side with perforated carbon steel. Partitions around the nurse's room in the dome-lounge cars and the dormitory partitions in the dome-dormitory cars are plywood covered with

bonderized zinc-coated steel, similar to the partitions around toilets and lockers in the coaches.

The floors in the coaches and dome cars are $\frac{1}{2}$ in. water-resisting plywood, treated to resist rot. This material is applied to the transverse floor supports from which it is separated by sound-deadening material. Carpets are laid over a $\frac{1}{4}$ in. rubber carpet pad. In corridors, toilets and crew quarters the floors are covered with rubber tiling.

The postal and baggage cars are all insulated with 3 in. of Ultralite in ends, sides, floors and roofs. The inside lining is low-alloy, high-strength steel. This is applied flat on the ends of all cars and on the sides of the postal cars. All headlinings are flat. The sides of the baggage cars are corrugated. Locker and toilet partitions in the postal and baggage cars equipped for messenger service are plywood, faced on both sides with bonderized zinc-coated steel.

Floors in the postal cars are laid to Railway Mail Service specifications. Those in the baggage cars are tongue-and-groove maple, $\frac{13}{16}$ in. thick laid longitudinally and screwed to wood strips which are secured to the tops of the transverse floor supports. A double floor is laid transversely at the side doorways. Wet racks at each end of the baggage cars consist of watertight, drained stainless-steel pans with removable slatted wood racks.

The baggage cars equipped for messenger service have an enclosed toilet, a desk, and a pigeon-hole wall case.

Electrical Equipment

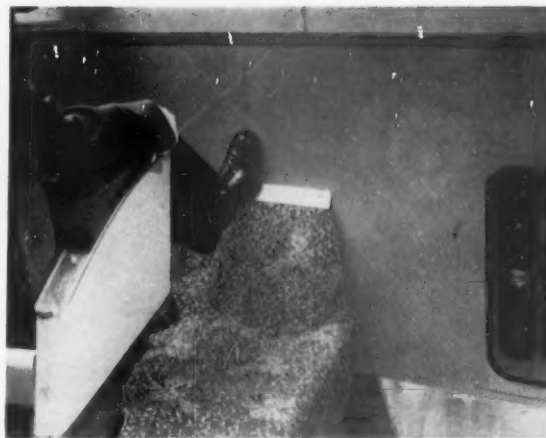
Electric power for lighting, air conditioning, and battery charging on each dome car is developed by a Caterpillar D315 diesel-generator set. The diesel is a 70-hp engine and the generator a 40-kw 220-volt, three-phase alternator operating at 1,800 rpm. This plant is located in the equipment space at the B end of the car and can be rolled out of the car through an opening in the side covered with removable panels. A tank underneath the car carries 200 gal of fuel.

Ventilation is provided by Farr dynamic grills in the removable panels in the side of the car and a fan on the generator drive shaft. No air is drawn into the equipment space from inside the car.

Protection against fire, which might be caused by an overheated bearing or other failure, is effected by an automatic detection and extinguishing system of C-O-Two design. Fenwal repeatable fire and overheat detectors set to actuate at 275 deg F release into the compartment 75 lb of pressurized carbon dioxide through nozzles.

The 220-volt current produced by the power plant is used directly to operate motors on fans, blowers and the air-conditioning compressor. Three $1\frac{1}{2}$ -kva delta-connected air-cooled transformers in the 220-volt circuit furnish 110-volt power for lighting, refrigerators and music. The 32-volt battery is charged from the 220-volt circuit through a selenium rectifier. This operates the diesel-engine starter and furnishes current for emergency lighting should the power plant fail. A relay automati-

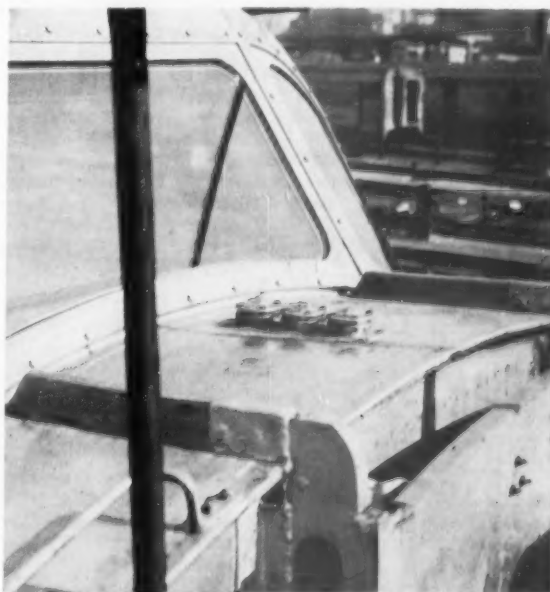
● Color illustrations appearing with this article were furnished through the courtesy of the Budd Company.



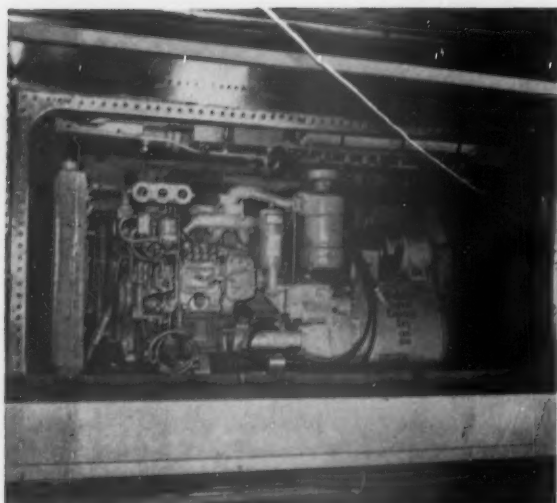
COLORED RIGID-TEX wainscot, polished on the high spots of the pattern, does not scuff.



PIER PANELS are Formica. The carpets in the dome and chair cars are the same pattern.



SOLAR DISCS compensate for the effect of varying sun load on the need for heat in the dome.



CATERPILLAR D315 diesel-alternator sets in the dome cars provide 220-volt, 40-kw power.



TRANE AIR-CONDITIONING equipment is installed at one end of a car diagonally opposite the alternator.

cally cuts in the emergency d-c lights in case of a-c power failure.

General lighting throughout the dome cars is fluorescent and is arranged to give many different effects. In the dome area, in addition to the illuminated table tops, indirect lighting of low intensity runs the length of the dome at the sides of the ceiling, producing the starlight effect, to which reference has already been made, through perforations in the lower side of the cove enclosure. In the lower level lounge 16 different lighting effects from direct to indirect lighting are possible.

The coaches are equipped with Safety 15-kw d-c generators and Spicer drive for a 32-volt electrical system. Exide 1,294 amp-hr batteries are applied. A-c power for fluorescent lights and the entertainment system at 110 volts is produced by a Safety 1,200-watt motor alternator set.

A 75-watt vibrator inverter furnishes 110-volt a-c power for shaving receptacles. Lighting in the passenger compartment is from fluorescent fixtures, six in the center of the ceiling and 24 under the baggage racks.

Public-address and wire-recorded music systems are

PARTIAL LIST: MATERIALS AND EQUIPMENT ON SANTA FE CARS

Truck frame center plate.....	General Steel Casting Corp., Granite City, Ill.	Jacking pads	Pennsylvania Electric Steel Castings Corp., Hamburg, Pa.
End underframes	Youngstown Steel Car Corp., Niles, Ohio	Stainless steel	Allegheny Ludlum Steel Corp., Pittsburgh
Center-plate liners	Gatke Corp., Chicago		Crucible Steel Co. of America, Pittsburgh
Wheels and axles	Standard Steel Works Div., Baldwin-Lima-Hamilton Corp., Burnham, Pa.		Republic Steel Corp., Cleveland
Journal bearings	SKF Industries, Inc., Philadelphia		United States Steel Co., Pittsburgh
	Timken Roller Bearing Co., Canton, Ohio	Aluminum sheet	Reynolds Metals Co., Louisville, Ky.
Springs	American Steel Foundries, Chicago	Aluminum extrusions	Detroit Gasket & Mfg. Co., Detroit
Equalizer and swing hangers	Canton Drop Forging & Mfg. Co., Newark, N. J.		Revere Copper & Brass, Inc., New York
Equalizer coil-spring, bolster coil-spring, and coupler-carrier pads; buffer stem bumpers	Fabreeka Products Co., Boston	Diaphragms; vestibule curtains	Adams & Westlake Co., Elkhart, Ind.
Buffing mechanism (upper).....	Standard Railway Equipment Mfg. Co., Chicago		Morton Manufacturing Co., Chicago
Buffer and draft gear; center pins	W. H. Miner, Inc., Chicago	Windows	Adams & Westlake Co., Elkhart, Ind.
Side bearings (dome cars only)	Transportation Specialties Co., Chicago	Insulation (body)	Gustin-Bacon Manufacturing Co., Kansas City, Mo.
Shock absorbers	Houdaille-Hershey Corp., Buffalo.	Insulation	J. W. Mortell Co., Kankakee, Ill.
Couplers; coupler yokes	American Steel Foundries, Chicago	Weatherstripping	Bridgeport Fabrics, Inc., Bridgeport, Conn.
Disc brakes	Budd Co., Philadelphia	Pneumatic door operator	National Pneumatic Co., New York
Hand brakes	National Brake Co., New York	Side and end door suspension and locking arrangement	Midland Co., Milwaukee
Brake system; end connections; wheel slide control.....	Westinghouse Air Brake Co., Wilmerding, Pa.	Glass, windows and doors.....	Pittsburgh Plate Glass Co., Pittsburgh
		Batteries	Electric Storage Battery Co., Philadelphia
			Gould-National Batteries, Inc., Trenton, N. J.
		Grating for battery boxes.....	Camden Iron Works, Camden, N. J.
			Wm. F. Klenk Metal Works, Chicago
		Battery charging and standby receptacles	Pyle-National Co., Chicago

installed both in dome cars and coaches. Loudspeakers are installed at several points in the passenger compartment of each coach, and in the lounges and the coach section of the upper level of both types of dome cars. In each dome-lounge car a speaker is also placed in the nurse's room.

The lighting generators of the postal and baggage cars are Safety 32-volt d-c type. Those on the baggage cars have a capacity of 2 kw; those on the postal cars, 5 kw. All are V-belt driven. Batteries on the postal cars are Exide EPTB-31 of 332 amp-hr capacity. Those on the baggage cars are Gould-National 16-KDZ-17R of 284 amp-hr capacity.

Heating and Air Conditioning

Vapor Unizone heating equipment is installed in each dome car. There are three of these systems in each car. Two control the temperature in the dome, one at each end. Each of these also controls the temperature of the passageway at one end of the normal level. The third system furnishes heat to the lower level lounge and nurse's room in the dome-lounge car and to the small lounge and dormitory in the dome-dormitory car. Heat is supplied by low pressure steam through fin-tube floor radiation and overhead heat from radiators in the air-conditioning evaporator. Panel heating is provided in the sides of the dome below the windows.

The temperature in the engine compartment is maintained thermostatically to keep the temperature above 50 deg. In the equipment space which houses the service water tanks manually controlled heat is supplied.

Maintenance of a uniform temperature in the dome is

made difficult by the great difference in the sun heat load between a bright sun and an overcast sky. Adjustment for this is effected by Vapor Solar Discs. Three of these devices are mounted on the roof at the B end of the car. When subjected to heat of the sun, they function to lower the temperature setting of the thermostats in the dome by 1/2 to 4 deg, depending upon the intensity of the sun. When clouds hide the sun, the temperature setting of the thermostat is raised so that less cool air is delivered to the dome space. The Solar Discs also change the thermostats that control the cooling system in the dome to adjust for sunny or cloudy summer weather. A sensitive mercury contact thermostat in one of the Solar Disc fittings causes the air-circulating fans to speed up whenever the temperature reaches and passes a limit of 85 deg.

Each dome car is provided with Trane electromechanical Freon air-conditioning units with a total capacity of 20 tons. Two Trane motor-driven compressor units are mounted in the A end equipment space with one 20-ton combination wet-and-dry type condenser. Two 8-ton cooling units, one mounted in each equipment space, supply conditioned air to the dome, one to each end. The 4-ton unit for the lower level is placed in the equipment space adjacent to the bar bulkhead.

Air from the cooling units flows up through glass-enclosed ducts in the dome windshields to the ceiling distribution duct. It is discharged through two rows of slot diffusers extending longitudinally along both sides of the ceiling and through Aneomstat diffusers placed at intervals along the center of the ceiling. Exhaust air from the dome passes through openings in the floor under the seats into ducts leading to two exhaust blowers in the B

Generator; motor alternator.....Safety Car Heating & Lighting Co., New Haven, Conn.
 Generator belt driveDayton Rubber Co., Dayton, Ohio
 Diesel alternator setsCaterpillar Tractor Co., Peoria, Ill.
 ConduletsCrouse-Hinds Co., Syracuse, N.Y.
 Pyle-National Co., Chicago
 Trainline connectorsPyle-National Co., Chicago
 ConduitGeneral Electric Co., Schenectady, N. Y.
 WireOkonite Co., Chicago
 TransformersWestinghouse Electric Corp., Pittsburgh
 Lighting fixturesElectric Service Mfg. Co., Philadelphia
 Luminator, Inc., Chicago
 Safety Car Heating & Lighting Co., New Haven, Conn.
 Switchboard and control featuresSafety Car Heating & Lighting Co., New Haven, Conn.
 Razor convertersElectronic Laboratories, Indianapolis
 Radio speaker grillChicopee Manufacturing Co., New York
 Annunciator systemEdwards Co., Norwalk, Conn.
 Air conditioning equipment.....Trane Co., LaCrosse, Wis.
 Air diffusersPyle-National Co., Chicago
 Filters; dynamic grills;
 fresh-air hood and scoop.....Farr Co., Los Angeles
 GrillsBarber Colman Co., Rockford, Ill.
 Heating equipment; end valves; connectors;
 steam conduitVapor Car Heating Corp., Chicago
 Pipe coveringJohns-Manville, New York
 Union Asbestos & Rubber Co., Chicago
 ThermometersTaylor Instruments Companies, Rochester, N. Y.
 Rubber tileArmstrong Cork Co., Lancaster, Pa.

Rubber-tile and carpeting installationState Flooring & Construction Co., Philadelphia
 Plywood flooringU. S. Plywood Corp., New York
 CarpetMohawk Carpet Mills, Inc., New York
 Under padUnited States Rubber Co., New York
 Curtain materialPantasote Co., New York
 Curtain fixturesAdams & Westlake Co., Elkhart, Ind.
 DrapesGoodall Fabrics, Inc., New York
 Coach seatsDwight Austin Products Co., Kent, Ohio
 Heywood-Wakefield Co., Gardner, Mass.
 Rubber for seating and seat backsGoodyear Tire & Rubber Co., Akron, Ohio
 Rubber for seatsUnited States Rubber Co., New York
 BarsAngela Colonna, Philadelphia
 Ice-making equipmentFrigidaire Div., General Motors Corp., Dayton, Ohio
 HoppersDunor Co., Chicago
 Soap dispensersImperial Brass Mfg. Co., Chicago
 U. S. Sanitary Specialties Corp., Chicago
 Lavatories and dental bowls.....Crane Co., Chicago
 Lavatory dispensersScott Paper Co., Chester, Pa.
 Smoking stand (Climax)F. T. Haffner & Co., Chicago
 Water tanksJohn Wood Co., Conshohocken, Pa.
 Water filter; chlorinatorTested Appliance Co., Chicago
 Water coolersHenry Giessel Co., Chicago
 Paper cup dispensersDixie Cup Co., Easton, Pa.
 PaintPittsburgh Plate Glass Co., Pittsburgh
 Fire extinguishersChicago Stopfire Co., Chicago
 C.O.-Two Fire Equipment Co., Newark, N. J.
 Defect card holderApex Railway Products Co., Chicago

end equipment space which discharge it outdoors through the floor. Exhaust from the lower level passes through grills to ducts leading to these same blowers. Fresh and recirculated air streams are mixed in plenum chambers, then pass through Farr viscous filters to the evaporator blowers. Damper controls can be set for 25 per cent, 50 per cent, and 100 per cent fresh air.

The coaches are equipped with Safety steam-ejector type air-conditioning units of six tons' capacity.

Both the dome cars and coaches have a service water capacity of 300 gal. In each case this is contained in two tanks. Those in the dome cars are housed in the equipment space and are not insulated. The service water tanks on both types of cars are connected to the air-conditioning condenser tank to provide make-up water when needed.

An Everclor automatic chlorinator is applied in the service-water systems of both car types. This is connected to the pneumatic water-lifting system so that, when the air pressure in the water tanks is released for filling, a measured quantity of a chlorine solution is automatically introduced into the tank.

Everpure filters are installed in the water lines from which water is drawn for the water cooler and dental basins in the coach and for drinking water, water for ice cubes, and for the washstand in the nurse's room on the dome cars. These remove all the taste and odor of chlorine as well as sediment and colloidal matter from the water.

Trucks and Brakes

The dome cars have Commonwealth six-wheel outside swing-hanger trucks with all coil springs and vertical and lateral shock absorbers. The wheel base is 11 ft. Axles have Timken roller bearings for 6-in. by 11-in. journals. Center plates are 24 in. in diameter and are fitted with Gatke 1-in. liners. The truck brakes on these cars are American Steel Foundries combination rotor and clasp type.

The coaches, postal cars and baggage cars have Commonwealth four-wheel outside swing-hanger trucks with all coil springs and vertical shock absorbers. The wheel base is 9 ft. All have 6-in. by 11-in. roller-bearing axles. The head-end cars have SKF roller bearings, and the other cars have Timken bearings. Stench-bomb hot-box alarms are applied to the journal boxes on all cars.

All of the head-end cars and 35 of the coaches have Budd disc brakes. Five coaches have American Steel Foundries combination rotor and clasp brake, and five the American Steel Foundries rotor brake.

All trucks have rubber bolster end bumpers and are sound deadened with Fabreka pads over equalizer spring seats, on journal-box equalizer seats and over the bolster springs. Gatke liners prevent metal-to-metal contact at the center plate.

Air brakes on all cars are Westinghouse HSC with D22-AR control valve, without straight air or electric brake-pipe control. Westinghouse AP Decelostats are applied on one end of each axle.

Draft gears on all cars are Miner A-4X-B. Couplers are controlled-slack Type E without lateral centering device. Operating in conjunction with the side stems, the buffer gear is the Miner friction type B-18-X.

Benchmarks and Yardsticks

A RECENT ARTICLE in the New York Times Magazine tells of the serious housing situation in France. Since 1945 only 45,000 new housing units per year have been built in the entire country—and, even 14 years ago, the age of the average French house was 110 years. In Paris alone a half-million people are reported to be living under "inadmissible" conditions of overcrowding.

What is wrong anyhow? The answer, says the report, is 40 years of rent control. In 1914 the government "froze" rents—and, when World War I ended and the franc was only a fraction of its prewar value, rents weren't thawed; and the politicians have never since got up enough courage to correct the situation.

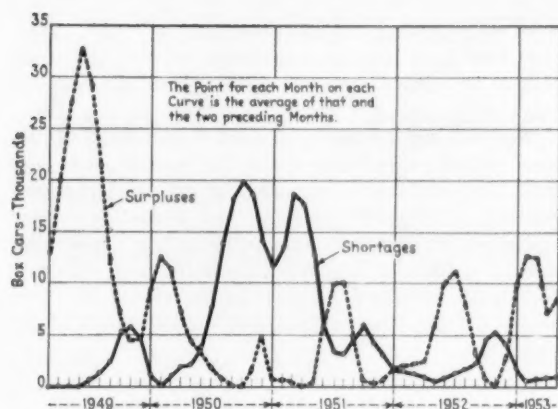
In 1914 the average Frenchman paid 16 per cent of his income for housing. At the end of World War II, the ratio had dropped to 1 per cent. Some increases have since been permitted, but the average is only 5 per cent today. Rent is such a bargain that nobody can afford to build houses; and nobody who owns houses can afford to keep them in repair. We are much better housed on this side of the Atlantic, but that is because our people are paying up to 25 per cent (or even more) of their incomes for rent, or for home ownership.

And is the Frenchman better off because of "taking it out on the landlord" like this? Well, he is paying 60 per cent of his income for food (about twice the U.S. average), and certainly the quality of the housing he gets is nothing to cheer about.

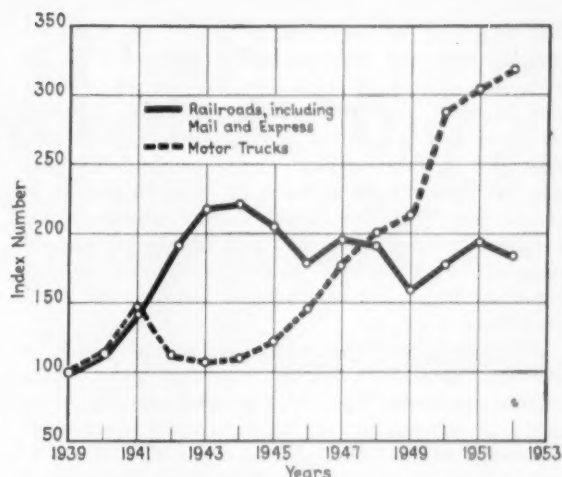
Whenever politics gets to interfering with the free market, it always winds up by making everybody poorer. Americans are not entitled to any feeling of superiority over our friends, the Frenchmen, either—because, just as they have destroyed the free market in housing, our politicians are doing the same thing in transportation.

For example, railroads are not permitted to change their rates to reflect the inflationary decline in value of the dollar (as French landlords were not permitted to raise rents to compensate for the decline in the value of the franc). Moreover, our politicians pour out billions for agencies of transportation other than railroads—making their services *appear* to be a lot more economical than they are. The so-called "inadequate highways" of this country, of course, are merely the reflection of the fact that there is so much commercial traffic on these roads which isn't paying its way.

The virus of political tampering with free markets has been operating in France a long time—long enough for the results to show up. But Americans still don't seem to be willing to learn from what they see. Experience keeps a dear school—says the proverb—but fools will learn in no other. J.G.L.



AVERAGE daily box-car surpluses and shortages, 1949 to mid-1953.



INDICES showing the trend of ton-miles of intercity traffic on the railroads and in motor trucks in the United States, 1939 to 1952. 1939=100.

RAILROADS NEED A POLICY OF . . .

Long-Term Equipment Planning

By G. METZMAN
Chairman and President
American Railway Car Institute

Orders for freight cars during 1953, and thus far in 1954, show a startling decline. They are even down to a level far below that required to replace retirements*, and give no recognition to the necessity for an increase in the car supply to meet the expanding economy of the country and to maintain the railroads' position against further inroads by competitors.

Railroad managements, in spite of the handicaps of excessive regulation and government subsidization of their competitors, have shown remarkable aggressiveness in capital expenditures for new motive power, roadway and terminal improvement. These appear to be in keeping with a fairly well-defined policy of planning for long-term traffic requirements. But the railroads evidently have found it more difficult to pursue a similar policy regarding new car equipment. Planning for and providing adequate power, roadway and terminal facilities will, of course, be of little avail in creating revenues for the railroads without a commensurate freight-car supply.

In a presentation before the Subcommittee on Domestic Land and Water Transportation of the Senate Committee on Interstate and Foreign Commerce (81st Congress) representatives of the railroad industry, in regard to Senate Resolution 50, said:

"But with all the developments of other forms of transportation, it remains as true today as ever that the economy of the United States is built around the railroad freight car, and that the welfare of the nation

requires a sound and healthy system of transportation by rail."

Industry in general bases its capital expenditures on long range planning of plant capacity expansion and modernization with a view of meeting its growing markets and competition. In the early part of 1953 a well recognized authority issued the results of a capital expenditure survey to develop the plans of industry for the period 1953-1956. It showed that generally expenditures to increase manufacturing capacity will continue at a relatively high level. It also indicated that industries were increasing their capacity through the period 1946 to date and that there was a remarkable accuracy of expenditure estimating through this period. Recently this same authority has issued the results of another survey which, though containing some modification of the earlier estimates, indicates that the capital spending in 1954 will make it the second best year in history for the capital goods industry. Planned expansion and modernization by all segments of business for the year 1954 add up to only about 4 percent less than 1953's record breaker. The electrical machinery and automobile industries plan 10 percent and 15 percent, respectively, more spending in 1954 than in 1953.

Recent Department of Commerce surveys show a continuing high level of plant and equipment capital expenditures for the last half of 1953 and bring out the contrast between this situation for industry generally and declining railroad equipment expenditures.

Potential Traffic Is Increasing

There appears to be no question about the expanding economy of the country. Over some 30 years industrial production has increased on an average of

* Retirements by Class I railroads in 1953 amounted to 48,231 cars, which is about 20 per cent below the normal figure of 60,000 used by the AAR when the program of new car acquisition was established in 1950. Yet orders during 1953 by Class I railroads amounted to only 26,152, slightly more than 50 per cent of the subnormal retirements.

5 to 6 percent per year. During the last 10 years commencing with the high production year of 1942, the increase has averaged about 2 percent per year. Population increases continually at a rate of $1\frac{1}{2}$ to 2 percent per year and Americans are substantially increasing their per capita consumption of food. In some items this has amounted to as much as 25 to 30 percent increase since 1939. The Census Bureau estimates a population of between 200 and 220 million in two decades, meaning correspondingly greater productivity and continuously increasing demands on industry and transportation.

Motor-truck registrations increased substantially in the last five years, while railroad freight-car ownership remained approximately static. Increased capacity of cars and improvements in car construction and power, faster movement and greater efficiency in loading and unloading of cars are admittedly involved in the factor of car requirements. However, unless the railroads are to surrender to competing forms of transportation, the ordering of new cars at least consistent with retirements of old ones is inevitable. If the railroads drift along without planning for expansion to keep pace with industrial growth and there follows a greater diversion of freight traffic to the highways (over 16 percent of intercity ton-miles handled by motor vehicles in 1952) then we may expect more and more trucks on the highways and less and less need for railroad facilities—truly a vicious cycle.

There are other conclusions that seem inescapable when considering the overall question of railroad freight-car supply. Approximately 18 percent of the entire fleet are more than 30 years old and an approximately equal percentage are 26 to 30 years old. This means that there is a huge backlog of deferred retirements. There have been critical shortages of cars during each of the last seven years with the exception of 1949. During 1953 there were numerous complaints of car shortages, particularly in regard to box cars, by shippers who have stated that they have found it necessary to divert traffic to the highways because of such shortages. While there are differences of opinion as to the amount of car surplus required, all have agreed that the railroads should have a substantial surplus or a so-called cushion to make up a mobile reserve of cars essential for dependable service having in mind the demands for cars of varying types and at various locations.

Passenger-train car orders are also currently running at a relatively low level and considerably below retirements. Yet more than 76 percent of these cars are over 20 years old and about 38 percent are more than 30 years of age. While the situation is admittedly less acute than that of the freight cars, nevertheless with the large number of over-age passenger cars and the substantial diversion of passenger traffic to the competing air lines and buses, isn't there a need for continuing modernization of passenger equipment and a need for a greater amount of planning and budgeting of these expenditures?

It is realized that the railroads recognize this situation and know that the old cars must be replaced and that they must have more and better freight cars to

hold their position against competitors. They appreciate that some way must be found to view the situation of car supply from the standpoint of the long-run future years, not just for a single year ahead.

Summing up the situation, it is hoped that the railroad capital expenditure policy for motive power and fixed property can be extended to embrace a greater amount of long-term planning and budgeting of car equipment expenditures for additions and modernization on a basis of reasonable regularity and according to a better stabilized program having regard to retirements and the long range transportation needs of the country.

Letter from A Reader

Creed for Good Public Relations

DETROIT, MICH.

TO THE EDITOR:

The Michigan Railroads Association is credited with having good press relations; a long string of friendly legislatures; an understanding public; and a friendlier railroad labor group than can be claimed by similar associations in many other states.

The reasons for this lie largely in the career of Col. Roy C. Vandercook, the dean of Michigan's industrial legislative representatives and generally known throughout the state as "Mr. Railroads." Col. Vandercook was named manager of the association at the time it was formed in 1923. Sensing that the association should be built around a public relations rather than a legislative theme, he started his activities with periodic tours up and down Michigan. He contacted the press, local leading businessmen, members of the legislature and Congress. "My aim," he now relates, "was to induce them to work with us for the good of the railroads and to put across the story of the importance of the railroads to Michigan."

In return, he listened to complaints against the railroads—discourteous and otherwise offensive deportment by local railroad officials and employees; dangerous or faulty grade crossings; unsatisfactory local service—the usual complaints. These he faithfully recorded and reported—following up the less captious and more deserving ones urging action on them.

He was given full leeway. He established no fixed policy for the association. Except for laying a wholesome public relations groundwork, he let matters develop as they showed up.

"The railroad situation in Michigan differs from that in any other state," he once said. "Our state has the Great Lakes on three of its four sides. We are more or less provincial in our railroad setup. That hasn't been unfavorable. We are not on transcontinental lines. Our men operate within the state—not from a point outside of it. That increased our ability to have better relations with railroad labor. Being centered in the state, we have a sort of 'Michigan family' feeling."

Today the association can say in its more than 30-year history:

- It has never aggressively opposed railroad labor legislation.
- It has never had to fight drastic legislative measures by railroad labor.
- It has never sponsored legislation that later proved contrary to the public good.
- No Michigan legislature has initiated harmful railroad legislation; and no Michigan legislator has come to the capitol with measures aimed specifically at the railroads in the state.

R. H. ALLIE

Secretary, Michigan Railroads Association

Another Chance to Win \$100!

ANNOUNCING:

A SECOND ESSAY CONTEST FOR RAILWAY AGE SUBSCRIBERS

• *Purchases and stores departments buy mainly for consumption by other departments—and handle nearly \$2 billion of materials, supplies and fuels each year. Inventory value of these items at any given moment equals roughly 1/3 the value of yearly purchases.*

• *Ten per cent or more of total transportation produced by the average railroad is for moving its own fuel, material and supplies.*

Clearly, it is to the best interests of railroads to reduce inventories and expenses of non-revenue transportation. Obviously, neither of these desirable objectives can be accomplished without the highest order of cooperation between Purchases and Stores departments and other railroad departments.

Railway Age is offering its subscribers an opportunity to express their thoughts about what, through interdepartmental cooperation, railroads are already doing, or what they could do, to:

(1) Reduce inventory of materials, supplies and fuel.

(2) Reduce transportation in non-revenue service.

The author of the best paper submitted to *Railway Age* on one of these subjects, or some phase thereof, will receive \$100. A panel of railroad executive officers, with purchases and stores background or interest, will be chosen to select the best paper. In addition to the winning paper, other papers may be selected for publication in *Railway Age*. The authors of such other papers will be compensated at regular space rates.

The purpose of the contest is to emphasize what railroads are doing, or could do, to reduce the expenses involved in excessive inventories and the expense of transportation for company freight. It is important that the best practice or theory on these subjects be made available to the entire industry.

It is not necessary that entrants analyze, and offer

Best paper on reducing (1) inventories or (2) expenses of non-revenue transportation will get award—Subscribers in ALL railroad departments are urged to participate

suggestions about solutions to one of the above subjects in its entirety. For example, one person might want to write primarily about reducing delays to cars in non-revenue service. Another might want to indicate how to reduce inventories of diesel parts, for example, or stationery.

★ ★ ★

The essay should be typed triple-space on one side of 8½ by 11-in. white paper. Maximum acceptable length is 4,000 words; there is no set minimum length, but 2,000 to 2,500 words should be ample.

It is important that the author's name and address appear on the first page of the essay, but only on the first page.

Mail entries to C. B. Tavenner, managing editor, *Railway Age*, 30 Church street, New York 7.

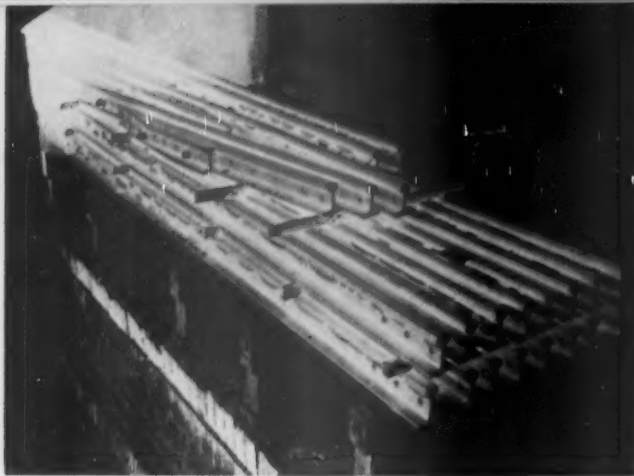
Entries postmarked up to May 10, inclusive, will be accepted.

Judges will evaluate the essays on three counts, in this order of importance:

- (1) practical value of the ideas or data to the railroad industry
- (2) Originality of thought or material
- (3) Clarity of presentation

★ ★ ★

A subscriber may submit more than one paper on either of the two main subjects. Papers submitted in the Purchases & Stores Division essay contest are acceptable. Persons submitting essays need not be employed in the purchases and stores department. In fact, railroad men in other departments are particularly urged to enter the contest. There are no restrictions as to rank or title of entrants, but the essayist must be a subscriber to *Railway Age* at the time his paper is submitted.



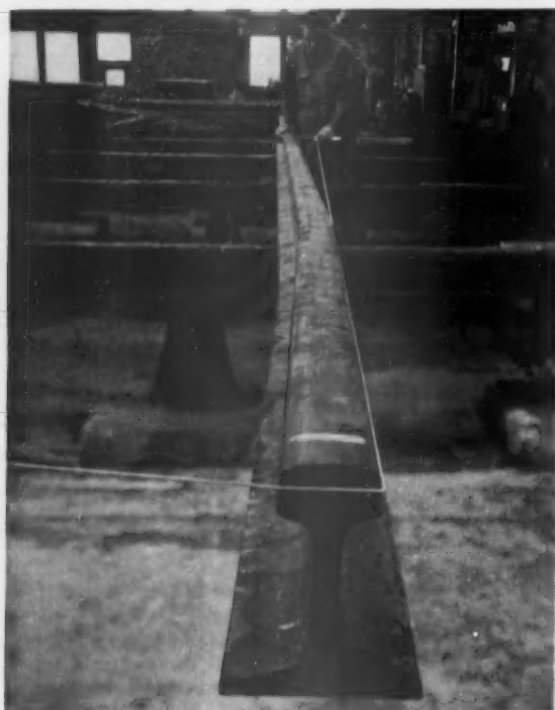
HOT RAILS and trackwork parts emerging from heating chamber on car-type furnace bottom.



WHOLE ASSEMBLY is lifted off car bottom and lowered into oil-quenching tank.



PERMANENT RECORD of heat treatment cycle is made by a multiple-recording electric pyrometer on each furnace.



HORIZONTAL BEND in heat-treated rail, which is to be planed into a switch point, is checked for exact angle.

FOR LONGER LIFE . . .

Heat Treating

Enlarged facilities at Bethlehem's plant at Steelton provide process for hardening rail, frogs, crossings and switches

With the cooperation of many railroads, the Steelton (Pa.) plant of the Bethlehem Steel Company has been a pioneer in the heat treatment of rail and special trackwork as a means of lengthening service life. Facilities for heat treating were first installed at Steelton in 1931. They were expanded in 1946 to include two large, direct-fired batch-type car-bottom furnaces with oil-quenching equipment to accommodate rails up to 45 ft in length. The facilities were again expanded in 1953 so that today Bethlehem can produce heat-treated rails and component trackwork items in lengths up to and including 60 ft.

The two car-bottom furnaces, used for heating, holding at temperature and for tempering, are identical in size and design. Each is 72 ft long, 9 ft 11 in. wide and 7 ft high, and is equipped with 46 burners, 23 on each side, designed for either oil or coke-oven gas firing. Six thermo-couples in each furnace are connected to automatic chart-type recording instruments, thus aiding in providing close control of the temperature. The furnace bottoms are car-mounted so they can be rolled in and out of the furnaces for loading and unloading material being treated.

Oil quenching is carried out in a tank, 64 ft long, 8 ft wide and 8 ft deep, which is centrally located with respect to the heating and tempering furnaces. The oil temperature is controlled through the aid of a heat exchanger. An overhead 35-ton traveling crane, equipped with special hooks and spreader beams, serves the quenching tank and the tracks of the two furnaces.

The Heat-Treating Process

The heat-treating operation as used at Bethlehem consists in heating the steel to a predetermined temperature for a time sufficient to bring about the desired change



AFTER TREATMENT the loose scale is removed from frog parts. Frog is then bolted together with special alloy bolts.



FROG POINT being formed from full-head rail section on planing machine.

Special Trackwork

in structure, after which it is quenched in oil. At the end of a carefully controlled period in the quenching tank, the materials are lifted out and placed in a pre-heated tempering furnace, where they are held for a specified length of time at the proper temperature to relieve quenching stresses promptly and to adjust the hardness and toughness of the steel. The entire process is under constant and close metallurgical control.

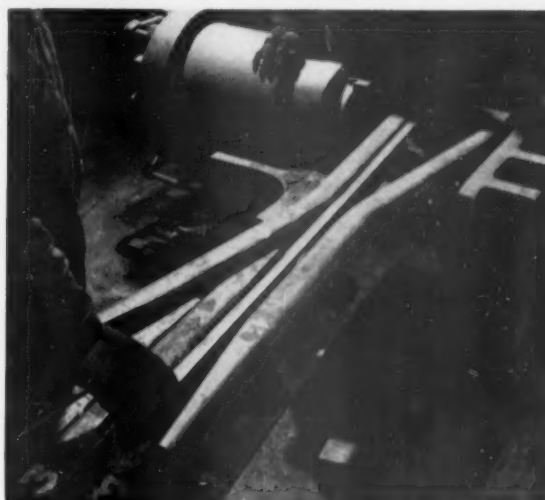
After the rails or fabricated rail sections have been heat treated, the results of the process are verified by special tests. Since it would not be possible to cut off a piece of test steel from the rail, frog, crossing or switch point after it has been laid out, sectioned and fabricated to specifications, another means must be employed for the test specimen. This is a piece of rail about 10 in. long which is cut from the same heat as the rails of the assembly. This sample accompanies the rails and other fabricated parts through the same heat-treating cycle, and the tests on this sample are then representative of the entire assembly.

After each heat treatment, Brinell hardness tests are run on each furnace load of rails and trackwork. A center section is sawed out of the test specimen, ground and tested.

Material Is Carefully Selected

Prior to heat treatment, the rails and component trackwork parts are selected with care. Only No. 1 control-cooled rails are used. On crossings, all machine work is done prior to treatment, the crossings being first completely fabricated and assembled with temporary fit-up bolts. They are then disassembled into convenient sub-assemblies for introduction into the furnace. During heat treating the rolled-steel fillers and other parts are hardened at the same time. This procedure is followed on all trackwork that is composed of more than one single piece of rail.

After heat treatment, the crossing components are thoroughly cleaned of scale, and accessible sharp edges and corners are removed by grinding. After reassembly,



ASSEMBLED FROG is adjusted to close alignment and spread in a horizontal alining machine.



STEEL MARKER, painted yellow, is bolted to each unit that is heat treated to identify it as being treated.

a complete check of alinement, gage and other dimensions is made before shipment.

Unlike the procedure used with crossings, switch points are heat treated before planing to assure uniformity of hardness. Also, it has been determined that, due to the unsymmetrical section and the thinness of the point itself, a much superior product is obtained when it is heat treated first and then planed. However, all necessary vertical and horizontal bends are made prior to treatment, then are reset after treatment.

"A successful passenger service is essential to the prosperity of the New York Central, and our objective is to accomplish just that."—William White, president of the New York Central.

Passengers Are Important Business

How the New York Central is attacking passenger service costs, improving standards of service, and seeking improved revenues

One of the major problems facing the New York Central in recent years has been its large deficit from passenger operations. It is, therefore, a problem which is being vigorously attacked. A measure of the success being achieved lies in Mr. White's report that the deficit has been blunted, that in the second half of 1953 it was running about \$750,000 per month under the previous year.

The New York Central is one of the few railroads to which passenger services represent such a large percentage of total revenues (22½ per cent in 1953) that the service can hardly be considered as a by-product. Consequently, solution of its passenger deficit problem involves considerably more than simply discontinuing trains. The NYC has mapped out a "vigorous and forward-looking program, aimed at building a more profitable passenger operation" and started it down the road.

New Organization

Unusual in the railroad industry are the organizational changes made during the past year by the New York Central to implement its new passenger service program. The conventional concept of a passenger traffic department has given way to a new and more comprehensive "passenger services department." This new department centralizes final responsibility for the end result—profit or loss—of the overall operation under a vice president—passenger services.

To achieve this end, all phases of passenger services—including several functions normally handled by transportation departments on other railroads—are, insofar as practical, being brought under the direct jurisdiction of the new passenger services department. Where it is not practical to bring direct jurisdiction of a passenger-related operation within the department—such as actual operation of the trains, maintenance of equipment, etc.—direct and formal liaison has been established with the concerned department to provide a cooperative base for continuing quality and cost control.

Functions which are being brought together in the new department include such varied operations as car distribution, dining car services, ticket selling, reservations and station operation ("up to the rails").

The broad outlines of the NYC passenger services department are shown in the accompanying organizational

chart. This chart has been expanded to show details of how transportation functions are channeled, and are divided between the operating and passenger services departments. The other divisions of the passenger services department have similar organizations, though they are not shown on this chart.

The outstanding accomplishment last year was the controlling of costs with relation to revenues. This was accomplished in the face of generally declining traffic, increased wage rates, and a stepped-up car maintenance program, by effective reduction in operating costs without seriously harming or curtailing service. For example, the increased use of diesel power in the Central's passenger service—all services east of Detroit and Cleveland are now diesel operated—has permitted longer, heavier trains. Train-miles—and operating costs—were trimmed by combining trains on the heavily traveled main lines, and by abandoning many lightly patronized secondary and branch line services. In the last three months of 1953 this resulted in a net reduction (under 1952) of 10 per cent in train-miles and 6.7 per cent in car-miles, with a decline in passenger service revenues of 3.6 per cent.

Costs have been further controlled by improving equipment utilization, making possible a 342-car reduction (or 8 per cent) in the car fleet requiring NYC shop maintenance in the last two years. Closer control of reservations and car utilization has resulted in higher load factors and a reduction in the number of empty seat-miles operated. Although the NYC's basic service pattern calls for much consolidating and breaking of trains, switching work has been reduced. More intensive utilization of dining cars—plus some service eliminations—have made it possible to shrink the active dining car fleet from 242 to 169 cars in barely two years' time. (In 1953 the direct loss from dining service operations was reduced about \$1 million—or nearly one-third.)

The entire equipment maintenance and repair program has been completely and thoroughly reviewed. Industrial engineering methods, controls and standards have been introduced in the passenger car shops. Improved methods made it possible to maintain the existing fleet to higher standards at no increase in the cost per car, in the face of rising labor and material costs. A major aspect of the equipment maintenance program is that much deferred maintenance has been made up while keeping ahead of current maintenance. Mr. White points out that much

remains to be done, but the job is too large to be cleared up quickly without incurring excessively large expenditures.

The handling of mail has come in for careful study, and an efficiency control system has been developed for use at all principal mail terminals. The control figure for each station is compared with its neighbor in a friendly effort to boost efficiency. The system has resulted in an increase in the amount of mail handled per man-hour—all to the satisfaction of the Post Office Department.

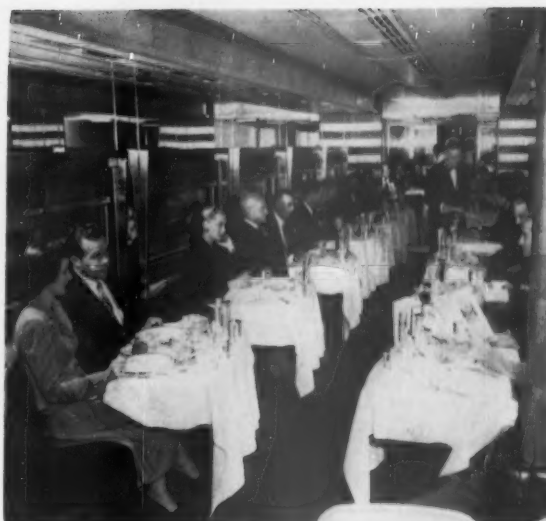
Building Traffic

On the other side of the ledger, attention has been paid to the equal necessity for building revenues and stimulating traffic. Fare reductions designed to hold existing revenues while building new have been aggressively promoted by initiating the now-famous family fare plan and the experimental one-third reduction in round trip coach fares between Detroit and Cincinnati, and between Cleveland, Columbus and Cincinnati. (The family fare plan grossed more than \$1 million on the NYC in 1953, in addition to bringing in untold inquiries which were converted into other types of sales.) It is the NYC's plan to continue with these and other fare experiments until it is definitely determined just what fares produce maximum revenues in relation to costs.

Other moves which have been made for the purpose of increasing traffic and revenues include:

- Improvement in train schedules, through a better distribution of running times, so as to give smoother, more pleasant rides.
- On-time schedule performance — at intermediate stations as well as at terminals—has been materially improved.
- "Thrift-grill" meals have increased dining car patronage and helped decrease operating losses. They are not, however, a panacea for all dining car ills, and do not work effectively under all conditions.

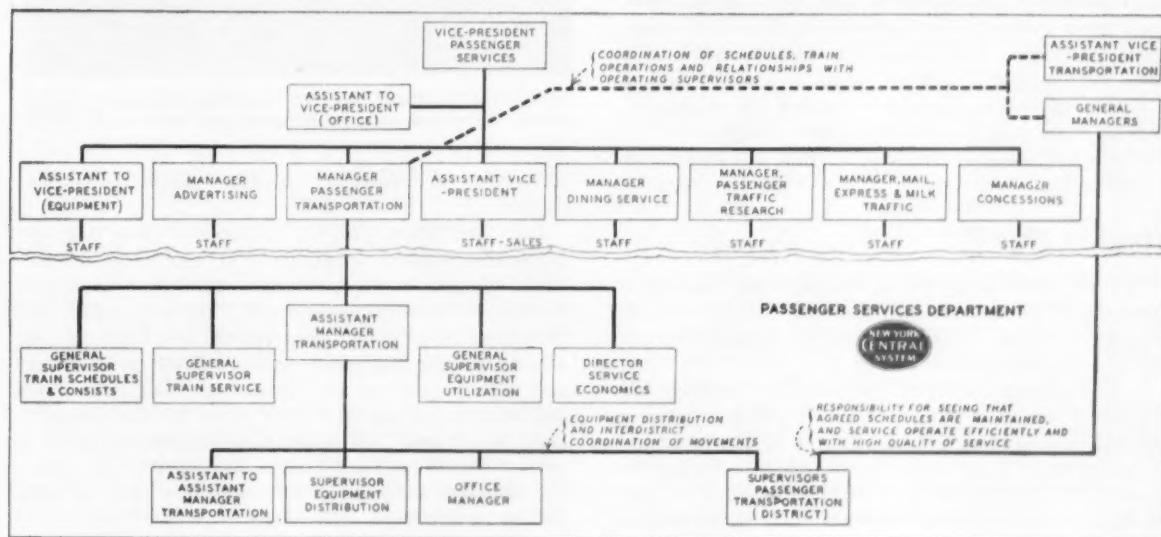
- A "Please the customer" training program has been



DIRECT DINING CAR LOSSES have been reduced almost one-third since passenger service program began.



NYC WAS FIRST ROAD to buy Budd RDC cars—and now has a fleet of 20 in regular service.





A "ROAMER" has helped the Chicago reservation bureau speed service for ticket sellers and the public. A "party line" telephone circuit connects one phone in the ticket office (left) with the reservation bureau (right), by-passing the distribution switchboard. In the reservation bureau



one clerk (known as a "roamer") remains connected to the line at all times, plugging in her headset at whichever of the five boards she must go to for space. The Chicago reservation bureau normally handles about 83,000 units of coach and sleeper space in an average month.

started among all employees, working from the top down. This program recognizes that the matter of improved handling of passengers goes deeper than a simple problem of disciplining employees; it is a matter of attitudes and understanding among all employees.

- A separate suburban service sales department has been established for the express purpose of improving commuter service results in the New York area, including the building of off-peak travel.

- Week-end "package tours" have been initiated between Chicago, St. Louis, Indianapolis, Detroit and New York, capitalizing on New York's great year-round attraction as a tourist mecca.

- Ticket selling and reservation techniques are being improved with the unusual ticket office and reservation system at Cleveland being used as a pilot installation. This office started functioning in June last year, and produced good service results immediately. The NYC management considers it a worthwhile project and is currently working out the "bugs" which inevitably develop in a new installation. When it is polished into a smooth-running routine, it is planned to open similar installations at other major traffic centers which are located on the railroad.

What Lies Ahead?

"We are never going out of the passenger business," President White recently told the New York Society of Security Analysts, "but any failure to recognize the impact of competition is unrealistic."

E. C. Nickerson, vice president-passenger services, has observed, "We must be carrying on the research today that will produce a service we can operate at a profit ten or fifteen years from now. We are today beginning the research and planning we hope will lead us into a successful future—which currently appears to lie in the volume



NYC COACH TRAVEL—other than furlough and commutation—increased some 600 passengers per day in 1953.

movement of passengers between major population centers."

Both Mr. White and Mr. Nickerson believe that one imperative problem facing the NYC—and the entire railroad industry—is the need for an entirely new concept of railroad passenger equipment. "There is need," Mr. Nickerson says, "to develop entirely new kinds of passenger carrying equipment which will attract customers and reduce operating and maintenance costs, and which will require less capital to buy. What we want is equipment which costs half as much, so we can buy twice as often." The New York Central has been working with the principal car builders in search of a practical satisfaction of this need.

Here's a New Kind of Pricing

E. V. Hill tells what Eastern roads are doing to carry out a new concept of competitive rate-making—"differential charging"

The broadest type of revisions in the history of our railroads" is how one traffic officer termed a new concept of rate-making he calls "differential charging"—which is the focus of the Eastern railroads' current program of rate revision.

E. V. Hill, chairman of the Traffic Executive Association—Eastern Railroads, told the Rail Transport Institute of the American University at Washington, D. C., on March 15, that the new concept of pricing "is dangerous" but that "there seems to be no alternative." He quoted an Eastern railroad president as saying: "If we go broke, it will be from hauling freight; and not because we price ourselves out of the market."

"Differential charging," according to the speaker, is a radical departure from long-held traditions:

- "It assumes that railroad management has the right and the duty to so price its service as to produce the most traffic and income; and they are prepared to fight for this right through the commission and the courts if necessary.

- "It recognizes the customers—the shippers and receivers of freight—as the final arbiters of the level of rates that may be required to move traffic in its greatest volume. If the railroads cannot, in their opinion, afford to meet the price, they will say so.

- "It departs from long established principle of observing and preserving relationship as between commodities, localities, shippers and receivers of the same commodities.

- "It recognizes that the railroads no longer enjoy a monopoly but, on the contrary, are in a highly competitive field of business."

The real difference in the new theory of ratemaking, compared with the traditional, said the traffic association chairman, is that "charges will be more nearly related to cost than solely to the value of the service."

Another significant fact is that "the recognition of differential charging means discrimination." But the railroads believe they can show that the discrimination will not be "undue," and will, therefore, be legal.

Railroad managements, said Mr. Hill, "recognize that we are at the crossroads, where further general increases might produce less, rather than more revenue. It is a real gamble. Never before have the Eastern railroads had before them, at the highest traffic officer level, so many important matters."

Recognizing that the railroads' plant is in good shape—"we have new railroads; they are not 100, but nine years old"—the speaker nevertheless expressed the opinion that "traffic will not move by railroads which, despite modernization of equipment, operate slow sched-

ules." He added that the great plant expenditures of the postwar period need traffic—"and lots of it"—to justify them.

"This is the jet age. Everything moves faster than ever before. Modern industrial plants are designed to receive inbound raw materials at certain points along moving assembly lines. This saves large inventories, storage and handling costs. Gone are the times when large industry stored a year's supply of materials, such as lumber.

"We no longer enjoy the price stability that once prevailed. The risk of loss due to price changes is too great. But if railroads are to participate in future business of this kind, they must provide fast, dependable service. Failure to do so may mean temporary shutdowns of industry. Our competitors have been doing an excellent service job. We must do as well.

"We traffic men realize, of course, that our competitor renders a more flexible service; that it is much easier to do a good service job with one truckload than it is for us with one hundred cars in a train. It is clear that no schedule could probably be devised that would suit every car in a train. It is probably true that railroads will never be able to provide the best service in all cases. But there is certainly room for improvement. This is something we can do for ourselves without new legislation."

Under the new concept, rate adjustments have been set in motion on a substantial number of commodity groups including the following—some of which are covered in their entirety; others for selected individual items only:

Items	Status
Canned goods	Allowed in part by ICC
Alcoholic liquors	In effect
Brass mill products	In effect
Aluminum articles	In effect
Soda products	In effect
Glass bottles	In effect
Soap, etc.	Published, not yet effective
Plaster, etc.	Published, not yet effective
Manufactured iron & steel	In effect
Linoleum	Approved by roads; not yet published
Sulphuric acid	Under study
Roofing materials	Under study
Paper articles	Under study
Cement	Under study

Mr. Hill emphasized that, in its concern with the present falling off in production, the country loses sight of the fact that even "recession" level production and consumption are far higher than that considered "good" a few years ago. "We have nothing to fear concerning the volume of traffic to be transported in the future."

"Now that the railroads have awakened to the fact that theirs is a highly competitive industry and are patterning their rates and schedules accordingly, there is every reason to believe that they may enjoy a large enough volume of business to provide reasonable profits."



FEDERATION FOR RAILWAY PROGRESS AWARDS were presented by Robert R. Young, left, to Julius J. Alms, general passenger traffic manager of the Burling-

ton, for his road's passenger service; to E. T. Moore, CNJ president, for that company's public relations program; and to Allan Keller, for journalism.

FRP DINERS HEAR . . .

Railroads Might Spend \$18 Billion

C. L. Dearing says management should ask regulators for "freedom to do what is necessary to earn that kind of money"

"It is time for the railroads to go to the Interstate Commerce Commission, say what they need, and ask for freedom to do what is necessary to earn the kind of money they need to make necessary improvements in their physical plant. No one knows just what that would run to, but complete modernization might well involve an expenditure in the neighborhood of \$18 billion."

That statement, by Charles L. Dearing, deputy under secretary of commerce for transportation, highlighted the seventh annual dinner of the Federation for Railway Progress, held at New York's Waldorf-Astoria Hotel on March 25. Dr. Dearing appeared as "Man of the Week," in a staged presentation of the Columbia Broadcasting System's public affairs television program which bears that name. Panel questioners who brought out his views on transportation were Lewis W. Britton, editorial associate of *Traffic World*; Shelly Pierce, railroad and financial writer for the *Journal of Commerce*; and Elizabeth Fowler, financial writer for the *Investors Reader*. Ron Cochran, CBS Washington correspondent, acted as moderator.

Another highlight of the dinner program was the presentation, by Robert R. Young, founder of the FRP, of the federation's annual awards. These went to the Burlington, "in recognition of outstanding achievement in progressive passenger service"; to the Central of New Jersey, "in recognition of its extraordinary contribution to the field of public relations by its clear and objective campaign for rearrangement of certain passenger trains and its progressive publicity projects" under supervision of its public relations director, Robert L. Barbour; and to Allan Keller, staff writer for the *New York World-Telegram and Sun*, "in recognition of his clear and objective series of articles on the railroad commuter problem," published during 1953. A fourth award had been previously presented to Raleigh Mull, Missouri-Kansas-Texas dining car steward (*Railway Age*, March 15).

In addition to Mr. Young, speakers included Dr. William N. Leonard, president of the FRP, who reported on its year's activities; Donald Sensenbaugh, yardmaster for the Western Maryland, and winner of one of the federation's educational fellowships; and Martha Rountree, television and radio producer, who talked on "Railroading from a Woman's Angle." Thomas J. Deegan, Jr., chairman of the federation, served as toastmaster.

(Continued from page 16)

yet been released. The test car, taken out of the Burlington's Chicago-Aurora suburban service is one of 40 built by the Budd Company.

The SP has indicated that it is considering purchase of new equipment for its suburban service (*Railway Age*, February 8, page 13), despite the heavy losses incurred in that service. In reporting the preliminary findings of its poll, the road indicated that some modification in car design might be made if gallery-type equipment is adopted.

Organizations

Mid-West Board Checks Up On "Clean Car" Promises

When it met in Chicago last January, the Mid-West Shippers Advisory Board agreed to ask all its receiver members to what extent they had given instructions to their unloading foremen that all cars must be completely unloaded of debris and dunnage.

The board's Clean Car Committee is now carrying out that recommendation, member by member. Results of the query will be aired by L. E. Olson, chairman of the committee and assistant director of traffic of Great Lakes Carbon Corporation, at the board's meeting in Chicago April 7.

Everette B. Harris, president, Chicago Mercantile Exchange, will be

guest speaker at a luncheon to be held jointly with the Traffic Club of Chicago.

Budd of GN to Talk On Inventory Control

John M. Budd, president of the Great Northern, will be the keynote speaker at the opening session of the annual meeting of the Railway Systems & Procedures Association. The underlying theme of the meeting, to be held at Chicago's Morrison Hotel, April 20-22, will be effective inventory management.

The morning session will open at 10 a.m. April 20, on succeeding mornings at 9 a.m. Nine manufacturers of business machines will exhibit equipment designed to help carriers with inventory control and other information handling jobs.

The program follows:

APRIL 20

Morning—Objectives of Inventory Management: R. E. Wynne, assistant to comptroller, Bessemer & Lake Erie—President's annual report; J. M. Budd, president, Great Northern—What management expects in inventory control; and A. G. Baker, vice-president and purchasing agent, Cotton Belt—Developing an effective plan for materials management.

Afternoon—Departmental Roles in the Inventory Control Program: E. V. Myers, superintendent motive power, Cotton Belt—Mechanical department's contribution; A. C. Ernst, assistant general storekeeper—Budget purchasing—procedures and effect on purchasing and storekeeping policies; and Machine exhibit—"Common Language" (five-channel punched paper tape) reading and "writing" machines at work.

APRIL 21

Morning—How Machines Handle Processing of Inventory, Payroll, and Operating Data: H. F. van Gorder, director, methods planning division, U. S. Steel Corporation—Planning (and accomplishments of) a paperwork handling system in which data is transcribed manually only once; and James

Thomson, staff assistant, methods planning division, U. S. Steel Corporation—Common language machines, their uses, and relation to the communication network and high-speed computers.

Afternoon—Railroad Uses of Common Language Machines for Data Processing: B. E. Wynne—Automating railroad paperwork will reduce errors, accelerate reporting and improve management control; and R. R. Crane, director of operations research, Melpar, Inc.—How demand for inventory items and ordering time affect inventory size. Machine exhibit.

APRIL 22

Morning—Role of the Electronic Computer in Inventory Control: J. R. Spellman, manager, Arthur Andersen & Co.—What is an electronic digital computer and how does it work?; L. A. Harr, assistant sales manager, electronic computer department, Remington Rand, Inc.—Electronic computers bring a new concept of inventory management; R. F. Osborn, manager, business procedures, General Electric Company—Problems encountered in converting to the "Univac" system for inventory control, production scheduling and payroll handling; R. T. Samuel, manager of sales, transportation department, International Business Machines Corporation; and J. E. Sheehan, special representative, IBM—Possible applications of electronic data processing machines in "centralized management of decentralized material stocks."

Luncheon speaker—H. M. Rainie, vice-president, Boston & Maine, and chairman, Purchases & Stores Division, Association of American Railroads—Prospects for reducing railroad material balances.

Great Lakes Board Meets

"It is difficult to locate a shipper who has ever been solicited for less-carload traffic," George J. Gatecliff, supervisor of traffic, Michigan Consolidated Gas Company, told the March 16-17 Cleveland meeting of the Great Lakes Regional Advisory Board. Because of this difficulty, Mr. Gatecliff added, it can be concluded that railroads are not "backing up their claims that they want local freight" with efforts to obtain that type of business.

Doubt whether railroads could handle the increased business their new rates on steel and its products are expected to make available was expressed by George J. Bleibtrey, chairman of the board's executive committee. "You haven't sufficient cars in condition to handle the business," he said in the presence of over 100 rail officers attending the meeting. "Too many of your cars that will haul the steel are not in good condition; too many others need to be upgraded to be put into steel hauling."

"If railroads handle the steel business as they did before trucks took it over, forcing consignees to wait an unreasonably long time for deliveries . . . then the new rates won't help a lot. If fabricators again must build up huge inventories because of slow rail deliveries, they'll either just stick with the trucks or go back to them after trying rail service again."

T-M-K Board Elects S. J. Hirschmugl

S. J. Hirschmugl, traffic manager of the Cupples Company, St. Louis, was elected general chairman of the Trans-Missouri-Kansas Shippers Board at its 32nd annual meeting in St. Louis, March 17-18.

Mr. Hirschmugl succeeds H. E. Bingham, director of traffic of the Spencer Chemical Company, Kansas City, who presided over the meeting;



ELECTRIC MINE ELEPHANT

This exceptionally large and powerful underground locomotive is in operation at Finleyville, Pa., at the Mathies Coal Company mine. With a rated drawbar pull of 25,000 lb., the locomotive is capable of hauling 454 tons on a 2.2 per cent grade. Because of grades in the mine, it normally will handle 32 loaded cars.

Built by the General Electric Company, the locomotive is rated at 600 hp and weighs 50 tons. It is 35 ft long and has four 150-hp motors, one on each axle. It is used to haul coal from an underground gathering point to the cleaning plant on the Monongahela river just downriver from Monongahela, Pa.

elected to serve with Mr. Hirschmugl for the coming year were L. W. Witte, traffic manager, Mid-Continent Petroleum Corporation, who moved up from vice-chairman to Mr. Hirschmugl's former post as alternate general chairman; H. L. Ryan, traffic manager, Ash Grove Lime & Portland Cement Co., Kansas City, who moves up from general secretary to become vice-chairman; and J. C. Iselin, general traffic manager, Wood Treating Chemicals Company, St. Louis, who was named general secretary.

A "positive approach" to problems of less-carload traffic was urged upon railroads by F. W. Monahan, traffic manager, Dow Chemical Company, Madison, Ill. In his LCL Committee report, Mr. Monahan called for better transfer methods to reduce terminal time of small shipments, and for more active solicitation of LCL traffic. W. Thayne Smith, traffic manager, Laclède-Christy Company, St. Louis, praised the carriers of T-M-K territory for their efforts to reduce damage to freight in terminals.

The board will hold its next meeting June 9-10 at the Baker Hotel, Hutchinson, Kan.

Has Jay Gould deserved his place as the "whipping boy" of 19th century railroading? In the long run, how should he be appraised? The **Lexington Group** will delve into these and other questions in a "long, critical look" at Mr. Gould's accomplishments during the group's 12th annual meeting at Madison, Wis., April 21. The meeting will be held jointly with the **Mississippi Valley Historical Association**. A panel to discuss Mr. Gould will include: W. J. Burton, assistant chief engineer, Missouri Pacific (currently preparing a history of that system); Professor Julius Grodinsky, University of Pennsylvania (currently preparing a monograph on Mr. Gould); Nelson Trotman, general solicitor—taxation, Chicago & North Western (and author of a history of the Union Pacific); Professor Gordon Hoxie, Columbia University; and Professor Joseph B. Frantz, of the University of Texas, who will serve as moderator and chairman.

The **Eastern Car Foreman's Association** will meet in the Engineering Societies building, New York, at 7:45 p.m., April 9. Joseph E. Dattner, general foreman, Reading car shop, will discuss "Journal Lubrication for Freight and Passenger Cars."

The **Women's Traffic Club of New York** will hold a dinner meeting April 13 at the Park Sheraton Hotel. E. M. Fuller, secretary-treasurer of Greenwood Mills, Inc., will be guest speaker.

The spring meeting of the **Material Handling Institute** will be held at the Drake Hotel, Chicago, at 10 a.m., April 13.

A dinner meeting of the **Mississippi Valley Maintenance of Way Club** is scheduled for 6:30 p.m., April 12, at the Hotel De Soto, St. Louis. J. P. Hiltz, Jr., chief engineer, maintenance of way, New York Central, will speak on "Decentralization in the Maintenance of Way Department." The program will include the showing of the U. S. Bureau of Public Roads film, "Maryland Road Test No. 1."

T. D. Slattery, U. S. resident vice-president and general traffic manager of Associated British & Irish Railways will be guest speaker at the annual dinner of the **Railway & Locomotive Historical Society's** Northern Indiana chapter at South Bend April 13.

Equipment & Supplies

LOCOMOTIVES

Iran Invites Bids On Locomotive Parts

The Iranian National Railways have invited bids for supply of locomotive spare parts, according to Foreign Com-

merce Weekly. A detailed list of requirements is available from the Commercial Intelligence Division, Bureau of Foreign Commerce, U.S. Department of Commerce. Purchase of the material will be made through an irrevocable letter of credit under a purchase authority issued by the U.S. Operations Mission in Iran.

Class I Roads Install 239 Locomotives in Two Months

Class I railroads installed 239 new locomotive units, all diesels, in the first two months of 1954, compared with 329 units (including 326 diesel units and three steam locomotives), in the first two months of 1953, the Association of American Railroads has announced. February 1954 installations comprised 80 units.

On March 1, Class I railroads had 521 new locomotive units on order, including 496 diesel units and 10 electric and 15 gas turbine-electric locomotives, the announcement said, compared with 1,069 new units, including 1,028 diesel units and 12 steam, 10 electric and 19 gas turbine-electric locomotives, on order on the same date last year.

The Jersey Central Lines have

Domestic Equipment Orders Reported by Railway Age During First Quarter 1954*

LOCOMOTIVES			
Purchaser	No.	Type	Issue Reported
C&NW	2	600-hp. Switching	Jan. 25
	15	General Purpose	Jan. 25
	10	1,600-hp. Switching	Jan. 25
	7	1,600-hp. Rd.-Sw.	Jan. 25
	3	1,200-hp. Switching	Jan. 25
Georgia	3	1,750-hp. Rd.-Sw.	Mar. 8
IC	48	1,750-hp. Gen. Purpose	Feb. 8
	2	2,400-hp. Passenger	Feb. 8
Memphahela	10	1,200-hp. Switching	Mar. 1
NYC	4	1,750-hp. Rd.-Sw.	Mar. 1
	3	900-hp. Switching	Mar. 1
NYC&StL	23	1,600-hp. Rd.-Sw.	Feb. 8
	2	1,600-hp. Rd.-Sw.	Feb. 8
SP	1	450-hp.	Mar. 15
WofA	2	1,750-hp. Rw.-Sw.	Mar. 8
			Electro-Motive
FREIGHT CARS			
Burlington Refrigerator			
Express	200**	50-ton Refrigerator	Mar. 15
C&NW	25	Caboose	Jan. 25
CGW	2	70-ton Tank	Mar. 15
D&RGW	10	Caboose	Feb. 8
CRI&P	100	50-ton Box	Jan. 18
	100	70-ton Covered Hopper	Jan. 18
GTW	100	50-ton Refrigerator	Feb. 1
Missouri-Illinois	100	70-ton Covered Hopper	Feb. 1
NYC	2,500	50-ton Box	Feb. 1
North American Car Corp.	275	40-ton Refrigerator	Mar. 22
NP	50	70-ton Refrigerator	Feb. 22
Union Refrigerator			
Transit Lines	800	40-ton Refrigerator	Mar. 15
Western Fruit Express	250**	50-ton Refrigerator	Mar. 15
WP	100	50-ton Box	Mar. 8
			Pacific Car & Fdy.
			Int'l. Ry. Car
			Amer. Car & Fdy.
			R.R. Shops
			Pullman-Standard
			Pullman-Standard
			Pacific Car & Fdy.
			R.R. Shops
			Despatch Shops
			Pacific Car & Fdy.
			Pacific Car & Fdy.
			General American
			Pacific Car & Fdy.
			Pullman-Standard
PASSENGER CARS			
GN	22	Dome cars	Feb. 15
New York City	200	Subway cars	Feb. 22
NP	1	RDC-3	Feb. 22
SP	1	RDC-1	Feb. 22
UP	10	Dome observation	Mar. 22
	5	Dome coach	Mar. 22
	5	Dome dining	Mar. 22
			Budd
			Amer. Car & Fdy.
			Budd
			Budd
			Amer. Car & Fdy.
			Amer. Car & Fdy.
			Amer. Car & Fdy.

*Based on orders reported by individual purchaser in *Railway Age*. In addition to orders tabulated herewith, *Railway Age* reported, early in the first quarter of 1954, equipment orders that had been placed late in 1953. These orders, although reported in 1954, are not listed.

**Originally ordered from company shops.

†The NP also has ordered three business cars from the Pullman-Standard Car Manufacturing Company (*Railway Age*, January 22).

ordered seven 2,400-hp. "Trainmaster" diesel units from Fairbanks, Morse & Co., at an approximate cost of \$1,700,000. The road's intention to purchase these units, which are needed for its rearranged suburban commuter service in the New York metropolitan area, was reported in *Railway Age*, January 18, page 27.

PASSENGER CARS

The **Jersey Central Lines** have ordered four rail diesel cars (RDC-1's) from the Budd Company at an approximate cost of \$607,000. The cars will operate, beginning April 25, in long-haul morning and evening commuter service and also will provide hourly service during the day for stations between Cranford, N.J., and Jersey City. The road's intention to purchase the cars was reported in *Railway Age*, January 18, page 27.

Supply Trade

J. A. Cuneo, general sales manager of **Fairbanks, Morse & Co.**, has been elected vice-president, sales, and **Robert B. Craig**, assistant to president, has been elected vice-president, with offices in Washington, D.C. **Mario A. Gasque**, assistant manager of **Fairbanks, Morse de Mexico, S.A.**,



J. A. Cuneo

Mexico City, has been appointed general manager there, succeeding **Paul A. Suess**, transferred to the Los Angeles branch as manager. **Alfred M. McLaren**, formerly manager at Los Angeles, has been transferred to St. Louis, succeeding **Cliff Schroeder**, deceased.

Edward J. Harley, who during recent years has represented the **Baldwin-Lima-Hamilton Corporation** in South America and Europe, has retired. He was chief assistant mechanical engineer and manager of diesel engineering for many years, and during World War II was granted a leave of absence to work with the

SHIPPERS FAVOR QUANTITY SCALED RATES

Railroads would gain profitable traffic if they were to publish quantity-scaled rates between l.c.l. and carload, according to a recent poll of industrial traffic managers conducted by *Railway Age's* companion publication, *Railway Freight Traffic*.

Better than eight out of 10 railroad customers replying to the poll favored the idea, and nine out of 10 said they would have no objection to such rates.

Those in favor of such rate making gave several reasons for their views, such as:

- Lower rates for shippers' goods;
- Equalization of unit cost of handling;
- Help industries meet distant competition;
- Help solve inventory problems;

- Aid in increasing healthy competition between carriers.

Voters in the minority group were equally firm in their convictions in opposing such rate making. Their reasons were:

- Not possible because of the railroads' pick-up and delivery charges;
- Trucks would get same rates approved immediately to meet such competition; and
- Lower rail rates on a quantity scaled basis would not necessarily improve service.

Panel members of the poll are located from coast to coast and represent large and small shippers of freight. Interest in the poll ran high, with 136 ballots cast out of 188 sent out.

Transportation Equipment Division of the War Production Board.

The **Brookville Manufacturing Company**, Brookville, Pa., is now manufacturing and supplying all-steel, fully-insulated structures of a design similar to the Universal buildings formerly produced by **Blaw-Knox Company**, and has completed arrangements to meet servicing and expansion needs of users of existing Blaw-Knox buildings. **Paul L. Erdner**, president,

and **Anthony A. Kramer**, vice-president, production, were formerly manager and chief field engineer, respectively, of the metal building department of **Blaw-Knox**.

Chester F. Faison has been appointed southwestern sales supervisor of the mobile communications department of **Allen B. DuMont Laboratories, Inc.** Mr. Faison was formerly with **Link Radio Corporation** as southwestern area sales manager.

Financial

McGinnis Reveals Plans for NH

Says he would use "Talگو" trains and "annual tickets" in passenger service; seek trainload rates for freight service—**Dumaine** calls Talگو plan "phony"; defends road's record

Two and one-half hour non-stop passenger trains between New York and Boston; annual tickets; trainload rates; and house-to-house selling of commutation service are included among changes which **Patrick B. McGinnis** says he will put into effect on the New Haven if the group of dissident stockholders which he heads should succeed in winning control of the railroad at its annual meeting in New Haven April 14.

The McGinnis group has nominated a full slate of 21 directors, including four members of the road's 1953 board. It is actively seeking stockholder proxies which it hopes will permit election of at least 13 of the 21, thus giving it control. In that event, Mr. McGinnis himself would probably become president. He has previously served as chairman of the board of the **Norfolk Southern**, and of the **Central of**

Georgia, and, in his capacity as senior partner of the New York Stock Exchange firm of **McGinnis & Co.**, has participated in a number of railroad reorganizations. Serving with Mr. McGinnis as board chairman would be **John E. Slater**, now chairman of the board of **American Export Lines**, who originally began his transportation career with the New Haven.

Opposing the McGinnis slate is the present management, headed by **Frederic C. Dumaine, Jr.**, president of the New Haven since 1951, and **Morgan B. Brainard**, chairman of the board.

Talگو Train—Mr. McGinnis' ideas for increasing the New Haven's gross revenues were outlined at a New York press conference shortly after his group had mailed its proxy solicitation material to the railroad's stockholders. Most striking of his suggestions was



A CARLOAD OF CROSSTIES can be unloaded quickly when they are bound 64 ties to a bundle by steel strapping and lifted by the 15-ton Lorain Moto-Crane onto trucks. A carload of six bundles was unloaded

in from 12 to 14 min. in this manner, and as many as eight cars were unloaded and the bundles spotted on trucks in 2 hours 35 min. Ties are for the new L&N freight yard being built at Nashville.

a plan for using a Talgo or Talgo-type train to provide 2½-hour non-stop service between Grand Central or 125th Street stations in New York and Route 128, the New Haven's new suburban station just outside Boston. The change from straight electric to diesel-electric motive power, now made at New Haven, could be avoided, Mr. McGinnis said, by using for the entire run a road diesel equipped with a "pickup shoe" which would take electric power from the existing third rail in the Park Avenue tunnel between Grand Central and 125th Street, where straight electric operation is required by New York City ordinance.

"Phony"—Mr. Dumaine, however, in a March 30 statement, characterized as "phony" the McGinnis plan for such a super-speed train. "No railroad passenger equipment," Mr. Dumaine said, "is built or presently planned to operate at such speed in the United States. It is estimated to put only one train, the 'Yankee Clipper,' in shape to make the wild run proposed by Mr. McGinnis. It would cost nearly \$3½ million for equipment alone; \$10 million would be needed for new signaling, without which you could not get ICC approval. Moreover, you could not operate such a train at speeds Mr. McGinnis fancies in congested areas such as New York and Boston and observe common-sense safety considerations."

Other Passenger Plans—Mr. McGinnis also told his press conference he had "a lot of little ideas" for improving the New Haven's commu-

tion service. Among these he mentioned parking lots at suburban stations, with a commutation ticket entitling a commuter to the "same parking spot" every day; installation of escalators and "moving sidewalks" at Grand Central Terminal; and a house-to-house survey of potential commutation business. This latter idea, he said, was based on the theory that railroads would "have no trouble" with commutation service if they could "get all the commuters." In the New York area, he added, the railroads "have no leadership," while certain prominent public officials "have been carrying the ball" for other forms of transportation.

He also proposed an "annual ticket," not good for commuting or for through travel between New York and Boston, but usable anywhere else on the New Haven system; and an "incentive plan" for ticket sellers.

Freight Service—It is high time, Mr. McGinnis said, that railroads went "all out" to compete with pipe lines and water carriers by getting the privilege of offering "trainload" rates on volume movements. In New England, especially, he added, they must have "incentive rates on everything," so "the man with a lot of freight can get a lower rate than the man with a carload." Also, he declared, railroads should offer "whatever is necessary to get the business back," and mentioned especially "pallets and smaller box cars."

He would continue the New Haven's present flat-car service for truck trail-

ers; and thinks that service might be coordinated with the proposed "trailer-ship" service between New England and southern ports (*Railway Age*, February 22, page 14).

Financial Factors—The McGinnis group's proxy solicitation material has been sharply critical of operating and financial policies of the present New Haven management. Among its principal allegations are that the road's financial condition and operating efficiency have both been allowed to deteriorate; that it has "lagged behind" other Class I railroads in modernization; that it has used necessary working capital for "improvident addition to plant, such as warehouses"; and that it has depended on non-railroad income, principally from real estate on New York's Park avenue, to "cover up" alleged losses from railroad operation.

Mr. Dumaine, on the other hand, has vigorously defended his administration of the road. "Each of the six New Haven directors who deserted our management for McGinnis," he said, "voted for each important capital expenditure that came before a meeting of the board that he attended . . . supported every major step in our policy to improve operation . . . enthusiastically backed my program for rebuilding the New Haven and developing new sources of income." Figures included in the "anti-management stockholders' letter" were "re-arranged," Mr. Dumaine asserted, "without regard for ICC accounting regulations," while the railroad's own accounts, "maintained strictly according to law . . . show a substantial profit from railway operations."

CNR's 1954 Budget Foresees \$500,000 Surplus

The Canadian National, for the first time since early in the last war, has cut its program of operating outlay, according to its 1954 budget, recently submitted to Parliament at Ottawa. The budget lists capital expenditures of about \$210,000,000 for modernization of rolling stock and predicts a nominal surplus of \$500,000, compared with an actual 1953 surplus of \$244,000.

Gross revenues for 1954 are estimated at \$688,500,000, compared with actual revenues of \$696,600,000 in 1953. Proposed operating expenses for 1954 are \$643,700,000, compared with an actual outlay of \$659,000,000 last year. The estimated outlay for 1954 does not provide for additional payroll costs that could result from current contract demands of non-operating employees, which the CNR estimates would boost its payroll by \$16,000,000 a year.

Donald Gordon, CNR president and chairman, told Parliament's railway committee at Ottawa that the 1954 budget had been framed to take care of a decline in railroad business, al-

though, he added, some CNR officers believe they have detected an upward turn in the past few weeks. Mr. Gordon, disagreeing with a legislator that higher freight rates might be pricing railroads out of some traffic, attributed the traffic decline to a general business drop.

Mr. Gordon said a freight-rate increase was certainly not the way to cure a traffic decline and pointed out that increases already granted had not covered increased labor costs. The only way the CNR had survived, he added, was by such economies as increased use of diesel power.

Admitting that train meal prices were discouraging to the ordinary traveler, he said that last year the road lost 59 cents on every meal it served. "We are trying to find a solution," he emphasized, "but we find that for every step we take forward we slip back again in wage costs."

Young Names Two More Candidates for NYC Board

Robert R. Young, chairman of the Alleghany Corporation, who is seeking to win control of the New York Central, has made public the names of two more of his candidates for membership on the road's board of directors. They are William H. Landers,

a retired NYC engineman, and Eugene C. Pulliam, publisher of eight newspapers, among which are the Indianapolis Star, Indianapolis Gazette and two Phoenix, Ariz., papers, the Republic and the Gazette.

Messrs. Landers and Pulliam are Mr. Young's tenth and eleventh nominees for NYC directorships. Names of his last four candidates will be announced later. Previously announced nominees were reported in *Railway Age*, March 8, page 10, March 22, page 11, and March 29, page 27.

The NYC, meanwhile, has announced that the May 26 stockholders' meeting will be held in an Albany, N.Y., armory with a capacity of 3,500 persons.

Chesapeake & Ohio.—Trackage Rights.—Division 4 has approved this road's acquisition of trackage rights over a 3.3-mile segment of the Chicago & Western Indiana at Chicago. The C&WI trackage is between Pullman Junction and 80th Street, and use of this segment by the C&O will supplement service already provided via the Belt Railway of Chicago. Heavy volume of traffic moving over the Belt line was causing delays, and the C&O said supplemental service over the C&WI will cut delays and expenses. C&O will pay \$3.00 per train-mile for use of the C&WI segment.

Delaware, Lackawanna & Western.—Seeks Two Seats on Nickel Plate Board.—ICC Examiner Jerome K. Lyle has recommended the commission look into stock relationships between the Lackawanna and the Nickel Plate. The examiner advised also that Lackawanna's move to name two directors on the Nickel Plate board be held up pending full hearing "on the merits."

The Lackawanna owns about 15 per cent of the outstanding Nickel Plate common stock, and in 1952 asked the ICC for authority to elect two directors to the latter road's board. Since this would not, in Lackawanna's opinion, amount to control, the commission was asked simultaneously to dismiss the whole matter.

The Nickel Plate and four other roads joined in opposing the Lackawanna move. They asked for hearings and Examiner Lyle has recommended such hearings be held. Meanwhile, he would broaden the proceeding by having the commission determine whether acquisition of Nickel Plate stock by Lackawanna was a violation of the Interstate Commerce Act or the Clayton Antitrust Act. Further, he thinks the ICC should investigate New York Central ownership of 8 per cent of Lackawanna's stock.

Preliminary findings contained in Examiner Lyle's report said Lackawanna's ownership of Nickel Plate stock, together with election of two directors in that company, would place Lackawanna "in a potential position to effectuate control. . . ."

William White, president of the New York Central, commenting on the proposal for an investigation, said:

"New York Central's ownership of Lackawanna stock is a hangover from the 1920s when there was much talk of railroad consolidations involving four or five systems in the east and the trunk lines bought up stock of other railroads. The Lackawanna stock which NYC now owns is simply being held for appreciation in market value, which is expected when Lackawanna is relieved of its heavy sinking fund requirements. . . . New York Central neither exercises nor desires to exercise control of Lackawanna and through Lackawanna, of Nickel Plate. There is no need for the commission to waste time and money investigating this matter . . . because New York Central is willing to . . . place its Lackawanna stock under a trust agreement with any trustee the commission selects."

Illinois Central.—Acquisition.—This road has applied to the ICC for authority to acquire direct ownership of facilities now owned by a subsidiary, the Southern Illinois & Kentucky. The separate subsidiary company would be dissolved. The acquisition is to fulfill a requirement in the IC's consolidated mortgage.

Long Island.—To Use Capital Funds for Operating Expenses.—Falling

Coverage of Fixed Charges by Large Railways

(Roads with Gross Above \$50 Million in 1953)

Railroad	Income available for fixed charges		Total fixed charges		Ratio of amount available to fixed charges	
	1953	1952	1953	1952	1953	1952
	Thousands	Thousands	Thousands	Thousands		
Duluth, Missabe & I.R.	\$13,384	\$5,635	\$586	\$661	22.84	8.52
Norfolk & Western	29,510	30,823	1,432	1,322	20.61	20.25
Union Pacific	75,437	73,913	5,007	5,185	15.07	14.26
A. T. & S. F. & Aff. Cos.	85,106	78,783	6,012	6,097	14.16	12.92
St. L. S. W. Lines	10,299	14,251	1,043	1,145	9.84	12.45
Chic., R. I. & Pac.	29,217	25,796	3,305	3,155	8.84	8.18
Western Pacific	8,740	7,306	1,006	1,007	8.69	7.26
Denver & Rio Grande	12,858	12,120	2,077	2,052	6.67	5.91
Seaboard Air Line	24,851	23,931	3,943	2,910	6.30	8.22
Elgin, Joliet & Eastern	3,500	5,009	611	532	5.73	9.42
Wabash	14,427	14,353	2,593	2,386	5.56	6.02
C., B. & Q.	31,948	33,775	6,286	5,774	5.08	5.85
Gulf, Mobile & Ohio	11,372	11,191	2,262	2,200	5.03	5.09
Great Northern	38,003	35,674	8,060	7,970	4.72	4.48
Texas & New Orleans	13,014	14,414	2,764	2,763	4.71	5.22
Delaware & Hudson	10,743	9,085	2,312	1,988	4.65	4.57
Chesapeake & Ohio	61,466	57,873	13,398	12,874	4.39	4.50
Texas & Pacific	14,184	14,896	3,153	3,240	4.50	4.60
Louisville & Nashville	39,593	33,806	8,940	8,708	4.43	3.88
N.Y., C. & St. L.	23,119	23,840	5,252	5,037	4.40	4.73
C., M., St. P. & P.	18,387	19,781	4,415	4,492	4.16	4.40
St. L.—S.F.	16,539	18,187	4,067	4,045	4.07	4.50
Illinois Central	35,001	33,289	8,632	10,086	4.05	3.30
Erie	19,855	20,642	5,184	5,279	3.83	3.91
Southern Pacific	65,811	68,742	18,258	18,571	3.60	3.70
Western Maryland	10,635	8,872	2,995	3,155	3.55	2.81
Southern	46,392	40,809	13,202	12,975	3.51	3.15
Lehigh Valley	11,329	11,919	3,285	3,651	3.45	3.26
M.—K.—T. Lines	10,005	11,163	2,985	2,937	3.35	3.80
Chicago and N. Wn.	10,721	10,324	3,396	3,038	3.16	3.40
Reading	18,318	17,531	5,836	5,855	3.14	2.99
Atlantic Coast Line	18,641	23,627	6,612	6,301	2.82	3.75
Norfolk & Western	25,542	25,874	10,003	10,053	2.55	2.57
Del., Lack. & Western	12,074	12,144	4,924	4,996	2.45	2.43
N.Y., N.H. & H.	15,135	15,670	6,355	5,810	2.38	2.70
Baltimore & Ohio	53,377	53,128	25,344	25,819	2.11	2.06
Boston & Maine	6,055	5,577	3,019	3,071	2.01	1.82
Pennsylvania	107,260	106,603	62,962	62,467	1.70	1.71
New York Central	83,155	72,959	49,153	48,243	1.69	1.51
Missouri Pacific*	28,745	32,801	17,973	17,862	1.60	1.84
Grand Trunk	5,578	2,784	4,422	4,484	1.26	.62
Central RR. Co. of N.J.	5,576	9,339	4,457	4,336	1.25	2.15
Long Island*	4,405	42,840	2,300	2,169

* In trusteeship in 1952 and 1953.

* Deficit.

From March 16, 1954, "Monthly Comment," issued by Bureau of Transport Economics and Statistics, ICC.

freight and traffic, increased operating costs, and inability to obtain higher fares, have forced the LI to ask court authority to use for operating expenses \$899,000 out of \$3,817,000 remaining from last year's sale to New York City of its Rockaway branch. Most of this latter amount had been earmarked for modernization or replacement of the railroad's fleet of commuter coaches; the balance of the \$8,500,000 received from the Rockaway Branch sale has been used for settlement of back taxes. In his petition to the court, William Wyer, LI trustee, said higher wages

and increased electric power costs, plus the drop in freight revenues, fore-shadow deficiencies in operating cash of \$899,000 by April 30, \$1,336,000 by December 31, and nearly \$4,000,000 by April 30, 1955. These deficiencies, he said, would have been approximately offset by a fare increase requested by the railroad last fall, which would thus have permitted the road to use the Rockaway funds for passenger car improvement. The increase was rejected by the New York Public Service Commission.

There are, however, indications that

Nassau county is ready to give the railroad substantial tax relief, as many local communities already have done. Its problems may also be considered at a special session of the New York legislature, which Governor Thomas E. Dewey is said to contemplate calling, following several conferences with Walter S. Franklin, president of the Pennsylvania, parent company of the LI.

The Public Service Commission has rejected a LIRR proposal to alter its type of monthly commutation ticket. (Continued on page 84)

ANNUAL REPORTS

Railroad		Operating Revenues	Operating Expenses	Fixed Charges	Net Income	Current Assets*	Current Liabilities*	Long Term Debt*
Akron, Canton & Youngstown...	1953	\$6,291,763	\$4,154,577	\$180,845	\$771,866	\$2,689,938	\$1,593,815	\$4,605,730
	1952	5,671,666	4,038,960	188,978	716,118	2,583,880	1,608,049	4,842,170
Atchison, Topeka & Santa Fe ..	1953	613,531,290	441,362,499	7,891,255	77,185,997	227,431,914	139,890,344	197,408,102
	1952	604,512,060	423,367,771	8,020,297	70,737,705	245,137,535	135,168,934	200,925,163
Atlanta & Saint Andrews Bay...	1953	3,747,720	1,763,618	15,393	589,374	2,535,677	1,533,698	none
	1952	3,637,103	1,761,163	15,391	584,286	2,384,739	1,352,878	none
Baltimore & Ohio.....	1953	460,848,985	366,066,148	18,443,307	28,032,933	190,142,480	75,505,195	587,066,469
	1952	442,676,674	351,517,805	18,781,675	27,308,828	118,146,542	71,517,053	601,194,788
Central of Georgia.....	1953	42,915,663	34,525,365	917,134	2,856,768	14,025,931	7,230,139	46,470,527
	1952	43,350,309	35,859,968	823,242	2,587,369	14,320,309	6,489,437	39,643,795
Chesapeake & Ohio.....	1953	344,048,870	248,497,937	13,397,845	48,068,635	88,224,780	64,441,877	395,924,969
	1952	355,682,536	253,214,082	12,874,008	44,999,175	111,468,976	87,107,265	400,165,658
Chicago, Indianapolis & Louisville.....	1953	21,887,902	16,946,807	283,273	1,211,135	6,582,129	4,156,603	22,138,796
	1952	21,814,236	16,509,753	275,492	1,140,012	7,701,633	4,455,979	22,414,756
Chicago, Rock Island & Pacific ..	1953	207,955,341	147,336,899	3,304,742	25,912,086	65,081,976	42,916,467	100,422,460
	1952	213,938,265	153,493,435	3,155,098	22,641,225	68,511,071	43,360,950	103,455,884
Delaware, Lackawanna & Western.....	1953	89,649,655	69,533,473	4,923,526	6,651,878	30,900,912	10,098,811	132,663,931
	1952	93,174,745	71,650,085	4,995,956	6,601,760	31,110,506	11,211,703	135,518,474
Fondo, Johnstown & Gloversville.....	1953	851,255	888,124	9,000	32,180d	326,546	165,697	945,350
	1952	935,143	930,849	11,870	3,975	313,146	179,342	976,775
Georgia & Florida.....	1953	3,885,597	3,213,835	988,478	871,694d	914,819	2,769,699	9,807,875
	1952	3,768,118	3,092,025	966,135	813,584d	836,150	2,687,094	9,907,465
Gulf, Mobile & Ohio.....	1953	93,633,442	66,439,895	1,666,994	7,904,798	44,579,370	32,356,764	73,185,799
	1952	92,855,805	65,050,684	1,655,578	7,785,093	45,687,198	32,068,787	73,143,293
Hudson & Manhattan.....	1953	7,327,544	6,523,059	1,471,555	567,593d	2,282,415	1,373,690	46,339,405
	1952	7,748,551	6,512,862	1,471,555	151,208d	2,371,305	1,482,197	46,339,405
Illinois Terminal.....	1953	12,593,632	9,957,782	575,580	662,779	3,564,793	2,850,737	15,192,474
	1952	13,001,803	9,980,338	540,826	506,486	4,123,318	3,449,216	15,409,019
Lehigh & New England.....	1953	8,120,364	5,720,588	225,812	1,492,732	2,943,596	2,571,036	8,011,052
	1952	8,993,784	5,503,298	237,037	1,830,953	4,123,843	3,243,571	8,054,640
Lehigh Valley.....	1953	76,338,708	59,138,933	3,285,065	6,970,629	23,435,275	12,702,940	100,843,490
	1952	78,506,707	59,743,810	3,650,855	7,205,178	22,624,219	13,369,002	105,514,486
Minneapolis & St. Louis.....	1953	22,000,504	17,018,800	290,599	1,948,662	6,216,426	4,138,776	8,794,707
	1952	22,901,461	17,318,404	239,842	2,102,486	7,019,344	5,069,143	9,634,373
New York, New Haven & Hartford.....	1953	165,029,092	132,973,431	6,355,197	5,045,451	26,126,014	31,575,333	193,852,974
	1952	163,419,662	130,301,586	5,810,240	6,080,147	29,556,384	30,629,843	193,614,006
Northern Pacific.....	1953	181,174,913	146,833,939	10,002,945	15,539,177	69,567,896	38,731,990	263,676,380
	1952	177,868,522	143,249,195	10,052,926	15,821,166	69,107,213	39,527,790	266,826,894
Pennsylvania.....	1953	1,034,394,640	864,522,807	48,973,701	37,036,215	283,927,399	140,227,801	809,429,164
	1952	1,028,750,217	865,885,772	48,699,652	36,981,364	310,657,480	147,181,579	829,816,305
Peoria & Eastern.....	1953	7,013,441	4,329,604	283,769	1,493,106	1,562,511	172,360	9,857,200
	1952	7,436,664	4,606,265	163,230	1,401,675	871,534	162,760	10,476,700
Peoria & Pekin Union.....	1953	2,843,838	2,151,692	79,223	305,937	2,099,852	2,571,973	2,454,110
	1952	2,980,858	2,326,606	88,031	277,237	2,183,328	903,360	2,772,416
Reading.....	1953	132,825,608	103,956,559	5,836,326	12,481,217	34,672,289	26,149,433	137,155,152
	1952	131,954,486	102,152,096	5,854,888	11,676,306	37,272,177	30,521,653	135,151,566
Seaboard Air Line.....	1953	156,643,985	112,836,079	3,943,448	20,907,833	58,637,223	30,254,150	116,727,000
	1952	160,584,277	116,886,004	2,910,389	19,988,605	61,556,351	32,152,060	120,157,000
Southern Pacific Transportation System.....	1953	692,085,110	525,941,845	20,253,846	57,922,316	226,959,751	127,309,217	631,221,017
	1952	700,359,116	519,949,998	20,565,276	61,941,887	277,499,757	146,165,639	646,699,554
Toledo, Peoria & Western.....	1953	7,750,827	4,623,807	59,610	834,763	3,098,446	2,426,838	1,852,860
	1952	7,117,607	4,590,108	60,004	861,067	2,768,929	1,962,853	1,945,380
Union Pacific.....	1953	530,024,299	400,427,364	4,998,646	70,430,213	229,487,140	121,696,590	184,843,392
	1952	520,221,326	389,840,053	5,175,091	68,727,226	240,852,821	123,643,156	194,702,865

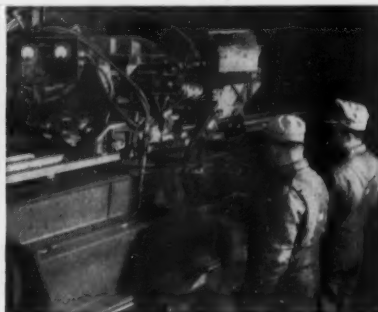
* On December 31.
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(Continued from page 82)

The railroad sought to retire the present monthly pass-type ticket good for 30 days from first date of use in favor of a punch-type calendar-month ticket.

Minneapolis & St. Louis.—Stock Dividend; Proxy Contest.—At their annual meeting, to be held in New York May 11, M&StL stockholders will be asked to approve issuance of 200,000 shares of no-par value common stock, to be distributed to present holders of the company's common stock at the rate of one-third share for each whole share now outstanding or authorized. The stock dividend,

which would increase the road's total capitalization from 600,000 shares to 800,000 shares, has already been approved by the directors and by the ICC (*Railway Age*, January 11, page 248, and February 22, page 77).

In its proxy statement to stockholders, in addition to asking approval of the stock dividend, the M&StL management called attention to the fact that a group of Chicago investors, headed by Ben W. Heineman, an attorney, is seeking proxies for election of seven of the road's 11 directors, in opposition to the management slate (*Railway Age*, March 15, page 74). That slate includes nine of the present

directors, but would replace two others—J. R. Delzfield and A. W. Benkert, both of New York—with two Minneapolis men—Charles Ritz, president of International Milling Company, and Howell P. E. Skoglund, president of North American Life & Casualty Co.

In its proxy solicitation material, the management says "There is intimation that the opposition has a program involving increased dividends, improved net income, material economies, serious consideration of merger or consolidation, and conscientious management." "We question," says management, "the ability of the opposition group to do any of these without possibly disrupting the property that has been built up for the shareholders over the past 18 years."

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Railway Express Agency.—Annual Report.—Total revenues for 1953 were \$398,077,836, 1.15 per cent below total 1952 revenues of \$402,706,075. Operating expenses and other deductions for 1953, however, dropped 2.44 per cent, from \$249,738,159 in 1952 to \$243,655,488 in 1953. As a result, the REA was able to increase its express privilege payments to railroads, air lines and other carriers for intercity transportation by 0.95 per cent, from \$152,967,916 to \$154,422,348.

Valdosta-Southern.—Acquisition.—The Madison branch of the Georgia & Florida has been transferred to the new Valdosta-Southern, wholly owned subsidiary of the National Container Corporation, at a cost of over \$200,000. The V-S, running about 28 miles from Valdosta, Ga., to Madison, Fla., connects National Container's new mill at Clyatteville, Ga., with four railroads: The G&F, the Seaboard Air Line, the Atlantic Coast Line and the Georgia Southern & Florida (Southern).

Securities

Illinois Central.—Stock Split and Stock Option Plan for Officers.—This road has applied to the ICC for approval of a plan whereby its common and preferred stock would be split on a two-for-one basis. It has also applied for approval of a "Restricted Stock Option Plan" whereby officers and key employees would receive options to purchase common. The splitting plan calls for issuance of 2,715,994 shares of no-par common and 372,914 shares of 6 per cent preferred, with a par value of \$50 per share, to be exchanged for 1,357,997 shares of common and 186,457 shares of 6 per cent preferred of \$100 par value presently outstanding. The stock option plan would involve issuance of up to 70,000 shares of the present common "or its equivalent." Both

plans are subject to approval of IC stockholders at a May 19 meeting in Chicago.

Dividends Declared

ATCHISON, TOPEKA & SANTA FE.—\$1.25, quarterly, payable June 1 to holders of record April 30.

LEHIGH VALLEY.—30¢, quarterly, payable April 20 to holders of record April 9.

NORFOLK & WESTERN.—4% adj. preferred, 25¢, quarterly, payable May 10 to holders of record April 15.

READING.—50¢, quarterly, payable May 13 to holders of record April 15.

VERMONT & MASSACHUSETTS.—\$3, semiannual, payable April 7 to holders of record March 29.

WHEELING & LAKE ERIE.—common, \$1.43¾, quarterly; 4% prior lien, \$1, quarterly; both payable May 1 to holders of record April 16.

Security Price Averages

	March 30	Prev. Week	Last Year
Average price of 20 representative railway stocks	60.53	61.46	66.61
Average price of 20 representative railway bonds	95.03	94.90	94.03

Railway Officers

ATLANTIC & DANVILLE.—**L. D. Curtis**, vice-president, has been elected president at Norfolk, Va., succeeding **Earl L. Keister**.

ATLANTIC COAST LINE.—**J. W.**

Plant, acting superintendent transportation of the Northern division at Savannah, has been appointed superintendent transportation of that division.

CANADIAN NATIONAL.—**Douglas L. Hardtman**, research assistant in the personnel department, has been appointed assistant secretary at Montreal.

G. H. Walker, city passenger and ticket agent at Hamilton, Ont., has been appointed district passenger agent at Toronto.

CANADIAN PACIFIC.—**C. J. West**, assistant foreign freight agent, has been appointed foreign freight agent at Montreal.

John Fullerton, freight traffic manager, Prairie and Pacific regions at Winnipeg, has been appointed general freight traffic manager, system,

Selected Income and Balance-Sheet Items of Class I Steam Railways in the United States

Compiled from 126 reports (Form 1BS) representing 130 steam railways

(Switching and Terminal Companies Not Included)

Income/Items	United States		United States	
	For the month of December 1953	1952	For the twelve months of 1953	1952
1. Net railway operating income.....	\$77,917,054	\$109,452,508	\$1,109,434,338	\$1,078,312,685
2. Other income.....	65,218,964	66,718,101	278,100,870	261,097,760
3. Total income.....	143,136,018	176,170,609	1,387,535,208	1,339,410,445
4. Miscellaneous deductions from income ..	18,953,360	6,369,533	62,602,785	51,131,640
5. Income available for fixed charges ..	124,182,658	169,801,076	1,324,932,423	1,288,278,805
6. Fixed charges:				
6-01. Rent for leased roads and equipment	7,036,183	6,490,026	75,506,816	77,069,596
6-02. Interest deductions ¹	26,866,513	26,473,465	325,835,981	319,940,871
6-03. Amortization of discount on funded debt.....	620,318	586,739	3,439,259	3,358,926
6-04. Total fixed charges.....	34,523,014	33,550,230	404,782,056	400,369,393
7. Income after fixed charges.....	89,659,644	136,250,846	920,150,367	887,909,412
8. Other Deductions.....	17,551,304	16,965,588	49,328,127	49,680,797
9. Net income.....	72,108,340	119,285,258	870,822,240	838,228,615
10. Depreciation (Way and structures and Equipment).....	43,490,236	41,979,268	504,868,130	485,690,613
11. Federal income taxes.....	28,699,075	44,979,099	532,948,481	612,537,434
12. Dividend appropriations:				
12-01. On common stock.....	58,454,911	28,055,769	334,089,070	262,688,454
12-02. On preferred stock.....	5,360,831	6,171,794	77,899,384	75,313,113
Ratio of income to fixed charges (Item 5 + 6-04).....	3.60	5.06	3.27	3.22
Selected Expenditures and Asset Items				
		United States		
		Balance at end of December 1953	1952	
17. Expenditures (gross) for additions and betterments—Road.....		\$401,900,789	\$405,821,636	
18. Expenditures (gross) for additions and betterments—Equipment		857,892,998	935,090,438	
19. Investments in stocks, bonds, etc., other than those of affiliated companies (Total, Account 707).....		442,776,075	459,600,545	
20. Other unadjusted debits.....		79,907,361	70,380,727	
21. Cash.....		836,749,138	953,291,926	
22. Temporary cash investments.....		998,307,567	1,002,162,333	
23. Special deposits.....		93,418,331	93,812,424	
24. Loans and bills receivable.....		3,216,441	1,081,279	
25. Traffic and car-service balances—Dr.....		60,889,731	67,045,197	
26. Net balance receivable from agents and conductors		155,226,684	181,917,585	
27. Miscellaneous accounts receivable.....		371,350,631	387,704,680	
28. Materials and supplies.....		839,888,435	839,822,392	
29. Interest and dividends receivable.....		17,673,300	14,584,767	
30. Accrued accounts receivable.....		209,147,989	216,128,281	
31. Other current assets.....		34,813,586	39,312,497	
32. Total current assets (Items 21 to 31).....		3,620,681,833	3,796,863,361	
Selected Liability Items				
40. Funded debt maturing within 6 months ²		\$240,780,337	\$161,219,589	
41. Loans and bills payable ³		2,393,817	2,581,271	
42. Traffic and car service balances—Cr.....		103,689,505	115,862,074	
43. Audited accounts and wages payable.....		516,163,278	521,687,121	
44. Miscellaneous accounts payable.....		218,734,838	219,982,966	
45. Interest matured unpaid.....		56,705,484	56,968,238	
46. Dividends matured unpaid.....		34,465,822	24,634,900	
47. Unmatured interest accrued.....		71,840,992	74,801,900	
48. Unmatured dividends declared.....		23,782,700	23,491,619	
49. Accrued accounts payable.....		227,773,957	228,112,685	
50. Taxes accrued.....		842,423,535	916,722,127	
51. Other current liabilities.....		77,262,598	96,586,697	
52. Total current liabilities (Items 41 to 51).....		2,175,236,526	2,281,431,598	
53. Analysis of taxes accrued:				
53-01. U. S. Government taxes.....		686,651,625	754,822,350	
53-02. Other than U. S. Government taxes.....		155,771,910	161,899,777	
54. Other unadjusted credits.....		247,080,045	244,948,692	

d Decrease, deficit or other reverse item.

¹ Represents accruals, including the amount in default.

² Includes payments of principal of long-term debt (other than long-term debt in default) which becomes due within six months after close of month of report.

³ Includes obligations which mature not more than one year after date of issue.

Compiled by the Bureau of Transport Economics and Statistics, Interstate Commerce Commission. Subject to revision.



John Fullerton

at Montreal, succeeding **Harry Arkle**, whose appointment as European general manager at London was noted in *Railway Age* March 15.

L. R. Smith, superintendent at Revelstoke, B.C., has been transferred to the Calgary division, succeeding **W. J. Price**, who will retire March



J. L. Hall

31, after 45 years of service. **George Meldrum**, superintendent at Medicine (Continued on page 88)

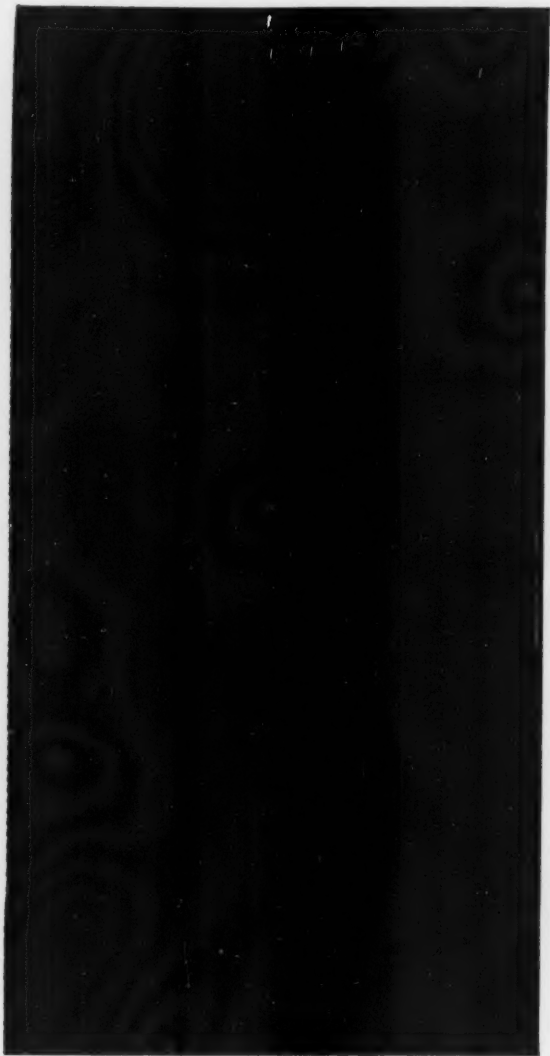
Does your

car heating put

you in the high



button shoe era?



*In trains as "modern as
tomorrow," your car heating is
obsolete... unless it's Honeywell*

Railroads today do an outstanding job in providing luxurious travel facilities and service. Yet these same modern facilities are marred by obsolete car heating... heating that harkens back to high button shoes!

This may shock you, but Honeywell Electronic Car Heating has outmoded even your 3-year-old systems.

Minneapolis-Honeywell started a revolution in car heating when it entered the railroad field just a few short years ago. It made all other systems *obsolete* and *wasteful*!

To improve the equipment then on the market, Honeywell developed a simple electronic control system to create *even* heat *throughout* the car. It did away with costly wasted steam, "heat pile-up" so irritating to riders, the inefficiency of equipment duplication that is so unnecessary—and so expensive.

Honeywell sets a new standard in reliability and low maintenance—it's a *modern* system—and will *stay modern* for a long time to come. You won't replace it in a few short years because of obsolescence. Neither will you have to discard expensive equipment that wasn't necessary in the first place!

You replace other obsolete equipment, so why stick with outmoded, inefficient car heating? The savings from Honeywell lower operating and maintenance costs are *substantial*.

So review *your* car heating systems—Honeywell can be installed easily and economically as a standard shopping procedure.



MINNEAPOLIS
Honeywell



Transportation Division

112 OFFICES ACROSS THE NATION

(Continued from page 85)

Hat, who has been assigned to special duties in Montreal since last December, succeeds Mr. Smith at Revelstoke. **J. L. Hall**, acting superintendent at Medicine Hat, has been named superintendent there.

A. M. Shields, assistant freight traffic manager at Montreal, with su-



A. M. Shields

pervision over Quebec and New Brunswick districts, has been appointed assistant general freight traffic manager there, succeeding **T. Hooks**, who has been appointed freight traffic manager, Prairie and Pacific regions, and U.S.

Pacific Coast agencies, at Winnipeg. **C. D. Edsforth** has been appointed assistant general traffic manager at Montreal. The position of assistant to general traffic manager at Montreal,



Charles D. Edsforth

formerly held by Mr. Edsforth, has been abolished. **J. M. Roberts**, general freight agent at Montreal, has been appointed assistant freight traffic manager there, succeeding Mr. Shields. **W. Miller** has been appointed chief of division bureau at Montreal, with jurisdiction over divisions, Eastern region, succeeding **A. S. Fleet**, who has been appointed assistant general

freight agent at Montreal, with supervision over such matters as may be assigned to him. The position of general freight agent, assigned to special duties, has been abolished.

A photograph of Mr. Hooks was published in *Railway Age* January 11, page 251.

CENTRAL VERMONT.—**Joseph A. Cerreto**, district supervisor at Palmer, Mass., has been promoted to general roadmaster at St. Albans, Vt.

CHESAPEAKE & OHIO.—**G. C. Whitlow**, assistant freight traffic manager at Richmond, Va., has been appointed assistant to vice-president—rates at Cleveland.

Fred B. Roberts has been appointed training officer in the personnel department at Cleveland. Mr. Roberts goes to the C&O from the University of Wisconsin, where he was head of supervisory development and an assistant professor in the Industrial Management Institute.

Doyle S. Morris, assistant general attorney, has been appointed general attorney, with headquarters remaining at Cleveland.

C. Harold Stone, formerly on the staff of the Industrial Relations Center



C. Harold Stone

at the University of Minnesota, has been appointed director of employee information of the C&O at Cleveland.

CHICAGO & EASTERN ILLINOIS.—**Warner M. Robertson**, general storekeeper at Danville, Ill., retired March 31 in accordance with the company's pension plan.

CHICAGO & NORTH WESTERN.—**W. G. Burns** has been named auditor disbursements at Chicago, succeeding **E. Moad**, who retired April 1.

CHICAGO HEIGHTS TERMINAL TRANSFER.—**R. R. Smith** has been named general agent of this C&EI subsidiary at Chicago, succeeding **Phillip S. Lottinville**, who retired March 31.

CLEVELAND, CINCINNATI, CHICAGO & ST. LOUIS.—**T. S.**
(Continued on page 90)

EVERY YOUNG MAN...

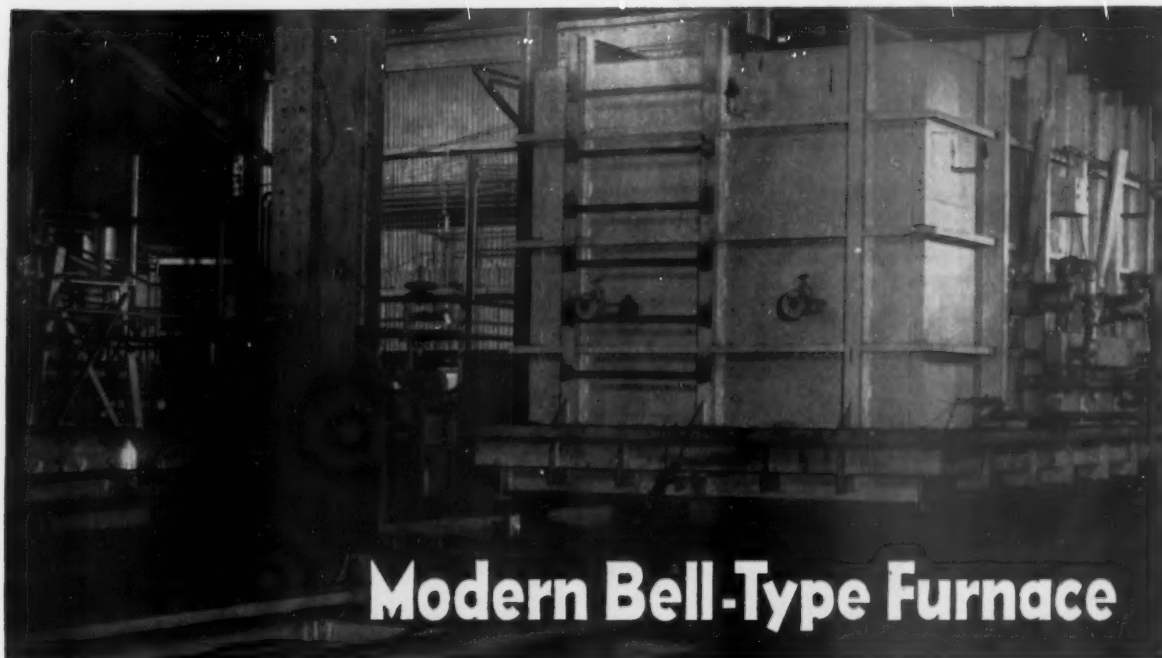
with a serious interest in the railroad business ought to read *Railway Age*. He owes it to his own best interests to get *Railway Age* at home each week. This way a few minutes reading will keep him informed as to what's going on in the industry, what's new, how someone else is solving problems common to his railroad and his own job.

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ANNEALS ALLOY BARS

This modern rectangular annealing furnace will anneal bars up to 30' long in controlled atmospheres. This is another important reason why Youngstown Cold Finished Alloy Bars are so satisfactory.

Metallurgical characteristics, machinability and cold working properties are benefited by use of such modern equipment. Tolerances and all phases of the manufacture of Youngstown Cold Finished Alloy Bars are subjected to rigid quality control by a single integrated organization—from mining of the ore to shipment of the finished product.

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HOT ROLLED RODS - COKE TIN PLATE - ELECTROLYTIC TIN PLATE - RAILROAD TRACK SPIKES

(Continued from page 88)

Christy, assistant superintendent communications at Cincinnati, has retired.

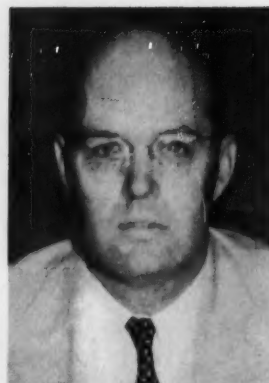
MISSOURI-ILLINOIS.—**R. Gordon Miller** has been appointed assistant general agent at Chicago.

NEW HAVEN.—**G. W. Flanigan** and **J. F. Falvey**, general freight agents—rates and divisions, have been appointed assistant freight traffic managers and **J. L. Lonergan** has been named assistant general freight agent, all at Boston.

NEW YORK CENTRAL.—**Del-**

mar W. Taylor has been appointed superintendent property protection at New York, succeeding **James D. Roosa**, who has retired after more than 41 years of service.

K. M. B. Stoddard has been appointed district road foreman at Syracuse; **G. E. Van Duesen**, **G. H. Miller**, **L. F. Benz** and **F. C. Hatch** have been appointed chief road foremen at Albany, DeWitt, Buffalo and Boston, respectively, and have been transferred from the jurisdiction and responsibility of the Equipment department to that of the Operating department. Messrs. Stoddard, Van Duesen and Benz were formerly chief



ELGIN, JOLIET & EASTERN.—**J. W. O'Neill**, assistant general superintendent at Gary, Ind., who has been promoted to superintendent transportation there, as *Railway Age* reported March 15, page 78.

road foremen of engines at the same locations and Mr. Miller was formerly road foreman of engines at Buffalo.

PENNSYLVANIA — PENNSYLVANIA-READING SEASHORE LINES.—**William H. Mapp**, superintendent of the Columbus division of the PRR, has been appointed general manager and traffic manager of the P-RSL at Camden, N. J., succeeding **Harry Babcock**, who has retired after more than a half century of railroading. Mr. Mapp also will suc-



William H. Mapp

ceed Mr. Babcock as superintendent of the Atlantic division of the PRR, which handles that road's operations in and around Camden and its line from Camden to Toms River, N. J. Mr. Mapp was born at Belle Haven, Va., 54 years ago, and joined the PRR at Cape Charles, Va., in September 1917, becoming superintendent at Columbus, Ohio, in 1947.

SEABOARD.—**R. W. Murray**, diesel instructor at Jacksonville, Fla., has been appointed general diesel su-
(Continued on page 92)



FOR A *Professional* FLOOR COVERING JOB—

Typical of the thorough attention to detail in the new Budd-built Santa Fe passenger cars is the meticulously-laid floor covering. Installed by STATE, the Armstrong rubber tile and the Mohawk carpeting, both quality products, are accurately cut and fitted by craftsmen in this type of work.

It pays to call in the "experts." As specialists in applying floor covering of all types — State Flooring & Construction is ready to serve you on any job — large or small.

STATE FLOORING & CONSTRUCTION CO., Inc.
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Still another C-D "first"



VIBRATOR
CONVERTERS
NOW EQUIPPED
WITH

*Shock-resistant
magnetic
circuit-breakers*

- This added feature has now been incorporated into the famous C-D dual vibrator circuit, which automatically and instantaneously switches over to emergency standby vibrator.
- The C-D vibrator converter saves 60% on cost of initial installation; saves 50% yearly on maintenance; services itself en route.
- Field-proved and accepted by over 60 leading railroads.

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VIBRATOR CONVERTERS WITH RAILROAD DEPENDABILITY
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BALLAST
NEEDS
CLEANING...



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BALLAST CLEANING
SERVICE



SPENO contract service eliminates capital investment by Railroads in this single-operation equipment.

SPENO'S double screening system gives a thorough cleaning in less time than a single screening by other mechanical means.

SPENO Ballast Cleaning Equipment does not foul train traffic on adjacent tracks.

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Just ask the Railroads that have used us.
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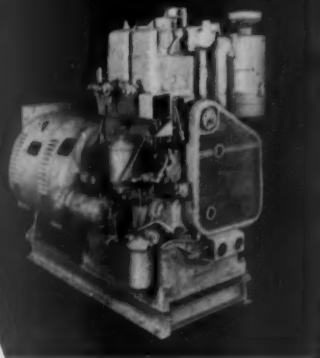
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NORDBERG DIESELS

power new MECHANICAL REEFERS
for PACIFIC FRUIT EXPRESS



15 kw Generator Units
specially designed to
meet power requirements
of compact TRANE
REFRIGERATION SYSTEM



• *Pacific Fruit Express*, the nation's largest refrigerator car line, has introduced the first of their mechanically refrigerated cars, several of which are equipped with Nordberg 2-cylinder Diesel Engine Generator Sets, to power individual reefer units furnished by the Trane Company.

Here are some of the exclusive advantages obtained through the use of these Nordberg 15 kw units: "INLINE" layout of all units means easier installation, more space available for cargo, and easier removal of entire unit for routine inspection and maintenance; Easily handles severe starting load without using voltage regulators, field forcing relays, compressor unloaders, or other complicated control devices necessary with most other generating units.

And remember—the design, operation and service of these busky power units are backed by the builders of America's largest line of heavy duty Diesels—from 10 to 10,000 H.P.



Made by the Makers of
"Mechanical
Muscles"
(Trademark)

Nordberg 2 and 3-cylinder Diesels are built for mechanical refrigeration systems having capacities of either 10-tons or 15-tons. Write for further details . . . and be sure to specify NORDBERG Diesels for your mechanical reefer power needs.

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NORDBERG MFG. CO.
Milwaukee, Wisconsin



ROCK ISLAND.—I. C. Bruce, who has been serving as general passenger traffic manager at Chicago since retirement of A. D. Martin in October 1953.

(Continued from page 90)

pervisor at Norfolk, Va. H. W. Rose succeeds Mr. Murray as diesel instructor at Jacksonville.

SOUTHERN PACIFIC.—Henry W. Neuebaumer, assistant division engineer at Sacramento, Cal., has been appointed acting division engineer at San Francisco, to succeed J. E. Wheeler, who has been granted a leave of absence because of his health.

TEXAS & PACIFIC.—Dwight B. Ohrum, corporate secretary and assistant to executive vice-president at Dallas, Tex., has been named general auditor at that point, succeeding Frank



Dwight B. Ohrum

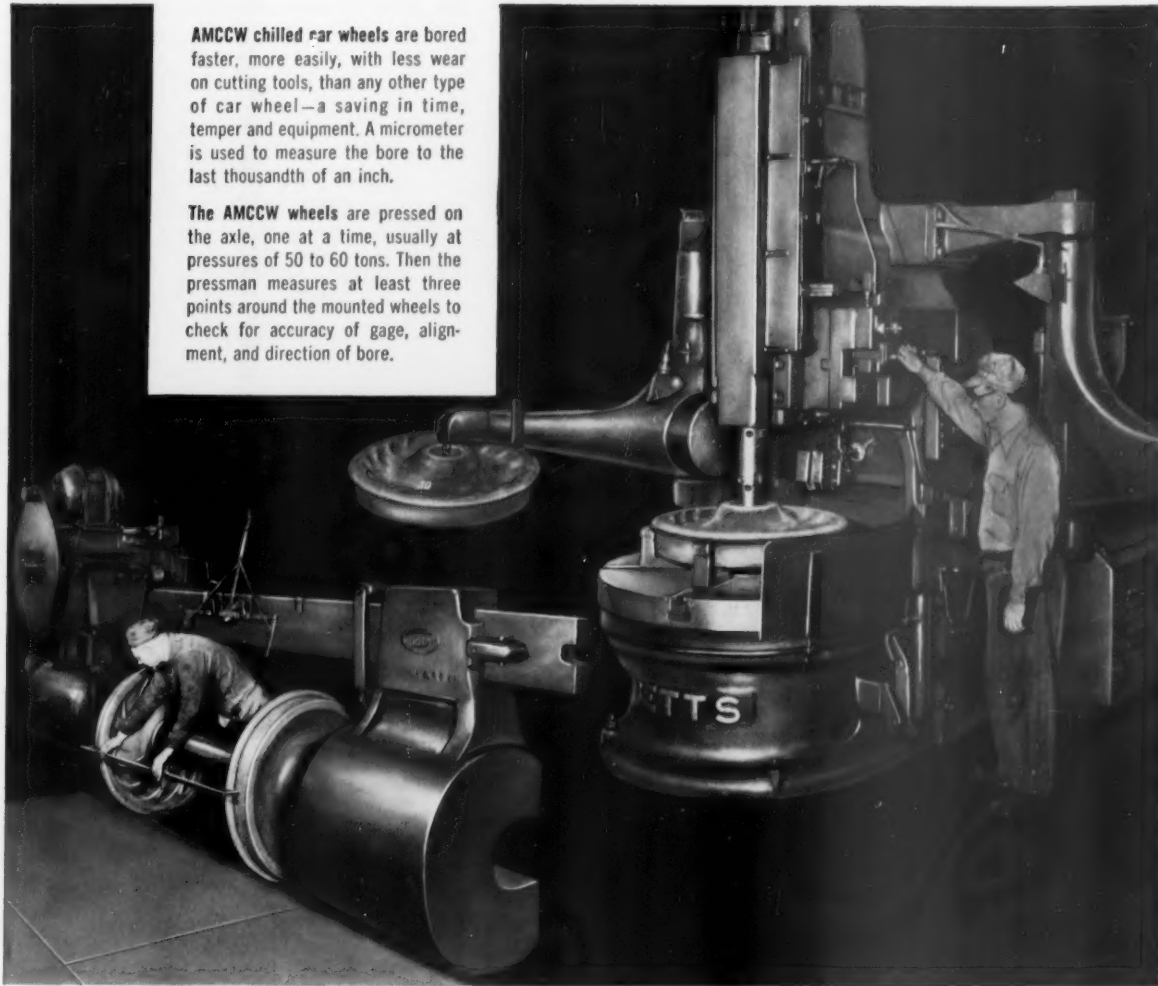
R. Latimer, retired. Mr. Ohrum's successor as secretary is R. S. Goode, statistician in the office of executive vice-president.

OBITUARY

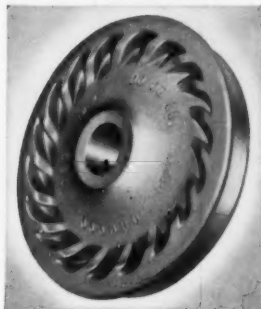
John P. Brazill, who retired in 1938 as general agent of the Lehigh Valley, died March 22 at Minneapolis.

AMCCW chilled car wheels are bored faster, more easily, with less wear on cutting tools, than any other type of car wheel—a saving in time, temper and equipment. A micrometer is used to measure the bore to the last thousandth of an inch.

The AMCCW wheels are pressed on the axle, one at a time, usually at pressures of 50 to 60 tons. Then the pressman measures at least three points around the mounted wheels to check for accuracy of gage, alignment, and direction of bore.



Why wheel shop men like chilled car wheels



The wheel that carries nearly two-thirds of the nation's freight cars. All AMCCW plants produce the improved car wheel with more brackets, to give thicker, heavier, more continuous flange support...and with a heavier tread on both rim and flange sides.

Wheel shop men can tell you quicker than anyone else how they can bore AMCCW chilled car wheels nearly twice as fast, with greater speeds and feeds...how they save time and reduce wear on expensive equipment...how they mount with a firm grip at only 50 to 60 tons pressure. Chilled car wheels are not only easier to mount, they make better safety records because iron *likes* to cling to steel.

That's why AMCCW wheels are the most popular ones in the wheel shop. Other economic advantages of the chilled car wheel are listed below. If you'd like to have the facts about today's chilled car wheel summarized for convenient reference, send for the free booklet, "The Chilled Car Wheel."

Low first cost • Low exchange cost • Available locally • Short-haul delivery • Reduced inventory • Increased ton mileage • High safety standards • AMCCW plant inspection • Easier shop handling

ASSOCIATION OF MANUFACTURERS OF CHILLED CAR WHEELS



445 North Sacramento Boulevard, Chicago 12, Ill.

Albany Car Wheel Co. • American Car & Foundry Co.
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***Pull
Bunk***

PIONEERS IN BETTER TRANSPORTATION



EXCITING NEW CARS for the NEW EL CAPITAN

● Among the many newly-built Budd stainless steel cars in El Capitan's consist are dome cars, where the dome extends practically the entire length of the car.

Seats and lounge in the upper deck provide accommodations for seventy-five passengers. And there's an additional lounge below for twenty-eight more passengers. What a de luxe service for a coach fare!

When current orders are completed for El Capitan and other Santa Fe trains, we shall have delivered a total of 355 cars to this great railroad.

The Budd Company, Philadelphia 15.





Send just **ONE** man to handle scattered maintenance jobs

The "one-man work crew" pictured above — a D Tournapull — requires only a phone call to get rolling at 28 mph to any work assignment. Operator just hops on and goes! No getting up a head of steam, no time-consuming switching, loading and unloading of equipment. A mile is only a couple of minutes away. Rig crosses tracks without blocking . . . does no damage to rails, switches, etc. Big, low-pressure tires deflect to move load evenly over obstructions . . . do not chamfer ties, trip or damage block signals. No delay to revenue traffic . . . no shut-downs for trains to clear.

Handles scattered jobs

D Tournapull self-loads, hauls, spreads material . . . repairs washouts, trims side-slopes to improve drainage, handles earthmoving for new roadbeds and relocations, fills around bridge approaches. It can transport and spread ballast, stockpile and reclaim coal, build grade



crossings. Equipped with 8' blade, it handles small dozing jobs. Because of its open-top, it can be shovel or hopper-loaded. With ability to turn around in space of only 25'4", "D" works easily in tight quarters.

Whatever the job, Tournapull can easily drive off right-of-way when mainline traffic barrels through . . . a minute or so after the train goes by, is working again.

Year-round interchangeability

And here's another cost-cutting advantage. You can easily interchange other LeTourneau-Westinghouse units behind same 2-wheeled prime-mover. For about 1/4 of original price, you can change scraper for 10-ton lift-and-carry crane, or a 9-ton rear-dump hauler. Self-loading flat-bed trailer is also available. Trailing units are changed in a few hours. This ability to handle a wide range of assignments keeps your equipment investment working full-time.

Send for details today. Have Tournapull demonstrated on your property . . . see its advantages for yourself!

◀ "D" shapes side-slope and ditch with handy 1 1/4-yd. dozer blade. Unit does not need planking to cross tracks. Self-loading Tournapull handles large and small-yardage dirt jobs, either in fleets or working alone.

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PEORIA, ILLINOIS

A Subsidiary of Westinghouse Air Brake Company

CANADIAN PACIFIC RAILWAY COMPANY

Seventy-Third Annual Report of the Directors to the Shareholders

(Abridged)

Highlights

YEARS RESULTS	1953	1952	Increase or Decrease	YEAR-END POSITION	1953	1952	Increase or Decrease
Gross Earnings	\$ 470,571,371	\$ 457,808,969	\$12,762,402	Property Investment	\$1,610,001,777	\$1,332,182,783	\$277,818,992
Working Expenses	441,686,799	428,878,189	12,808,610	Other Investments	179,766,333	175,579,208	4,187,125
Net Earnings	28,884,572	28,930,780	46,208	Funded Debt	126,114,000	112,316,000	13,798,000
Ratio Working Expenses to Gross Earnings.....	93.9%	93.7%	.2%	Reserves	571,675,089	352,004,485	19,670,604
Other Income	\$ 16,802,051	\$ 22,651,775	\$ 5,849,724	Working Capital	90,593,778	116,925,631	26,331,853
Interest and Rental Charges	14,236,161	12,904,010	1,332,151	TRAFFIC			
Dividends—				Tons of Revenue Freight Carried	59,256,634	61,504,783	2,248,149
Preference Stock	3,130,586	3,102,382	28,204	Revenue Passengers Carried	9,426,934	9,868,073	441,141
Ordinary Stock	20,710,474	20,664,464	46,010	Revenue per Ton Mile of Freight	1.42c	1.30c	0.12c
Balance for Modernization and Other Corporate Purposes	7,609,402	15,311,699	7,702,297	Revenue per Passenger Mile	2.82c	2.83c	0.01c
				EMPLOYEES			
				Employees, All Services	95,211	95,695	484
				Total Payroll	\$ 311,943,927	\$ 297,894,376	\$14,049,551
				Average Annual Wage	\$ 3,276	\$ 3,113	\$ 163

Your Directors again have the honour of presenting the Annual Report of the results, operations and developments of another year in the activities of your Company.

The volume of freight traffic was second only to that of the previous year, while gross earnings of your railway operations were higher than ever before as a result of increases in freight rates which became effective early in the year. Although the reduction in traffic volume was fairly general and was particularly marked towards the end of the year, there were important increases in certain commodities. The carryings of grain and grain products, while at a high level, declined somewhat despite the harvesting of one of the largest grain crops in Canadian history. Stocks of grain remaining available for rail shipment were the highest on record.

Mounting wage costs and the failure to achieve the traffic volume which had been hoped for at the beginning of the year made it necessary, by mid-year, to curtail maintenance expenditures and so to defer part of the work which it had been planned to undertake to maintain your railway property. Despite this step, working expenses increased by an amount sufficient to overtake the increase in gross revenues. Net earnings from railway operations were, therefore, at the same level as in the previous year, and thus, once again, were far from sufficient to provide a fair return on your railway investment.

It was because of the long-continued failure of railway earnings to meet current needs and of the necessity of maintaining the ability to attract new capital that your Company, again in 1952, requested the Board of Transport Commissioners to establish the net investment in your railway enterprise as a rate base and to establish a fair return thereon. In its judgment of February 15, 1954, in respect of this application, the Board denied a general increase in freight rates and rejected the rate of return on investment as the sole basis of deciding applications for general increases. The judgment did, however, establish the net investment in your railway property, and its use as one of the "end" tests with respect to permissive net rail earnings. In rendering its decision, the Board noted that Western grain, which constitutes a substantial percentage of total traffic, is required by statute to be carried at the same level of rates as prevailed in 1899. This, it was stated, affects the net return on rail investment, particularly when it becomes difficult or impossible to transfer the burden of the deficiency to other classes of traffic.

It would be deplorable, not only from the standpoint of your Company but also of Canadian industry and agriculture generally, if, because of inadequate railway earnings in years of general industrial prosperity, it should become no longer possible to keep your facilities adequate to the demands made upon them. In 1953, a total of \$86 million was spent on additions and improvements to your railway properties. Every effort has been and is being made to continue the programme of modernization which

has been productive of substantial economies in operation and a strengthening of your transportation enterprise.

Dividends declared by The Consolidated Mining and Smelting Company of Canada, Limited, were again lower, as were net earnings from ocean and coastal steamship operations. As a result Other Income declined \$5.8 million from the previous year.

Receipts from petroleum rents, royalties and reservation fees amounted to \$7.3 million, an increase of \$3.7 million.

The Income, Profit and Loss, and Land Surplus Accounts of your Company show the following results for the year ended December 31, 1953:

Income Account	
Gross Earnings	\$470,571,371
Working Expenses	441,686,799
Net Earnings	\$ 28,884,572
Other Income	16,802,051
	\$ 45,686,623
Fixed Charges	14,236,161
Net Income	\$ 31,450,462
Dividends:	
Preference Stock	\$ 3,130,586
Ordinary Stock	20,710,474
	23,841,060
Balance transferred to Profit and Loss Account	\$ 7,609,402
Profit and Loss Account	
Profit and Loss Balance	
December 31, 1952	\$270,456,446
Balance of Income Account for the year ended December 31, 1953.....	\$ 7,609,402
Portion of steamship insurance recoveries representing excess over net book value, S.S. Empress of Canada, and compensation for increased cost of tonnage replacement	3,471,477
Excess of considerations received for sales of properties over book values, and miscellaneous items	1,756,924
	12,837,803
Profit and Loss Balance	
December 31, 1953, as per Balance Sheet	\$283,294,249
Land Surplus Account	
Land Surplus December 31, 1952.....	\$ 77,225,695
ADD:	
Receipts from Petroleum Rents, Royalties and Reservation Fees	\$7,305,961
Land and townsite Sales.....	2,707,160
Miscellaneous Receipts	1,357,341
	\$11,370,662
DEDUCT	
Administrative and Other Expenses	\$ 620,672
Taxes (Incl. \$2,900,000 income taxes)	3,284,146
Inventory Value of Lands Sold	86,065
Miscellaneous	4,087
	3,994,970
	7,375,692
Land Surplus December 31, 1953, as per Balance Sheet	\$ 84,601,387

(Advertisement)

Railway Operations

Gross earnings, in continuance of the unbroken upward movement since 1946, reached a new high of \$470.6 million, exceeding those of 1952 by \$12.8 million. The increase came almost entirely from freight revenues which, due to higher freight rates, provided a record proportion of 83% of gross earnings.

Freight traffic measured in ton miles was 5% below the 1952 peak. Although the reduction was fairly general, with marked decreases occurring in coal, pulpwood and iron and steel products, there were some increases, notably in crude oil, cement, sand, gravel and crushed stone. The ton miles of grain and grain products, which represented 42% of total freight traffic, decreased by 3.6%.

Passenger traffic decreased 4.5% in terms of revenue passengers carried and 4.1% in terms of revenue passenger miles.

Express traffic was at a record level. Expenses, however, were adversely affected by increased wage costs, so that net revenues of your Express Company carried to railway earnings as compensation for the haulage of express traffic decreased by 3%.

Working expenses, at \$441.7 million, were higher than in any previous year, and exceeded those of 1952 by \$12.8 million, principally owing to increases in general wage costs and in prices of ties, rails and certain other materials.

Maintenance expenses accounted for the greater part of the increase in total working expenses, with a rise of 4% for way and structures and 8% for equipment. Owing to the closing out of the Maintenance Fund there was no credit to expenses corresponding to the item of \$5 million which was charged to the Fund in 1952.

Way and structure repairs included the laying of 536 miles of new rail, all of which was 100 lbs. or over, and of 507 miles of relay rail of various weights; the installation of 2.7 million ties, of which 97% were creosoted; and the application of ballast to 742 miles of line, including 174 miles of rock ballast. Since 1939, the percentage of main track mileage with rail of 100 lbs. or over has increased from 32% to 50%, and the percentage of creosoted ties increased from 60% to 87% of all ties in track.

Equipment repairs included the overhaul of 700 steam locomotives, periodic repair of 103 diesel-electric units, and the general repair of 38,266 freight and 999 passenger cars.

Transportation expenses were about the same as in the previous year, but the ratio of transportation to total operating expenses declined to 43.9% from 45.5% in 1952. The increased use of diesel power contributed to improvement in operating efficiency and new high averages of train speed and gross ton miles per freight train hour. There was a drop of 11% in the man-hours per freight train mile of train and engine crew overtime, and a decrease of \$2.4 million in the outlay for train and yard switching fuels.

Net earnings from railway operations, at \$28.9 million, were down \$46,000 from 1952. The ratio of net to gross earnings fell from 6.3% to 6.1%. With only two exceptions, this was the poorest ratio in the history of your Company.

Other Income

Other Income, after income taxes, amounted to \$16.8 million, a decrease of \$5.8 million.

Ocean and coastal steamship operations resulted in a net deficit as against a net profit in 1952. The decrease in net amounted to \$4.2 million. There were reduced cargo carryings by your ocean steamships. Rates on grain and flour fell to an extremely low level. The results of your coastal steamships were adversely affected by general business conditions, competition by other steamship and airline services, and by the loss in 1952 of a vessel which has not been replaced.

Net earnings of hotels decreased by \$334,000. A rise in gross reve-

nues was insufficient to meet the increase in expenses brought about mainly as a result of higher wage rates.

Net earnings from communication services were up \$202,000. Gross revenues increased owing to greater volume of leased private wire business and higher rates for telegraph message service, and expenses increased owing to higher wage rates.

Dividend income decreased \$3.7 million, chiefly as a result of reduced dividends from The Consolidated Mining and Smelting Company of Canada, Limited. Dividends declared on the stock of that Company were at the rate of \$1.20 out of earnings of \$1.23 per share, compared with \$1.65 out of earnings of \$2.00 per share in 1952.

Net income from interest, separately operated properties and miscellaneous sources was down \$1.3 million. Approximately one-half of this decrease pertained to Canadian Australasian Line Limited, which is in process of closing out its affairs. The destruction of your "Empress of Canada" and a Mark 1-A Comet jetliner resulted in your Insurance Fund showing a loss. There was a reversal from a profit to a loss in the operation of the jointly-owned Northern Alberta Railways Company.

Fixed Charges

Fixed charges, at \$14.2 million, were \$1.7 million greater than in 1952, but were well below the average for the previous ten years.

The greater part of the increase resulted from the servicing for a full year of the \$35 million issue of Convertible Seventeen Year 4% Collateral Trust Bonds dated December 1, 1952. There was a net increase in the charges on equipment trust obligations, the amount of interest pertaining to a new issue having exceeded the reduction resulting from the discharge of obligations which had matured.

Net Income and Dividends

Net income, after fixed charges, at \$31.5 million, was down \$7.6 million. After provision for dividends on Preference Stock, earnings available for dividends on Ordinary Stock and for reinvestment amounted to \$28.3 million. This was equal to \$2.05 per share on 13,806,997 shares of Ordinary Stock outstanding at the end of the year, compared with \$2.61 on 13,801,015 shares at the end of 1952.

Dividends were declared on Preference and Ordinary Stock at the same rates as in 1952. Preference Stock dividends amounted to 4%, comprising 2% paid August 1, 1953, and 2% paid February 1, 1954. Ordinary Stock dividends amounted to \$1.50 per share, comprising 75 cents paid August 1, 1953, and 75 cents paid February 26, 1954.

Land Accounts

The net increase in Land Surplus Account amounted to \$7.4 million.

Receipts from petroleum royalties increased \$1.2 million and from reservation fees \$2.5 million. Royalties from crude oil were received on 9.9 million barrels from 590 wells, as compared with 6.3 million barrels from 450 wells during 1952. There were general increases in reservation fees in Alberta and Saskatchewan. Ten-year contracts were negotiated with two major oil companies, providing for the payment to your Company of annual fees of \$1.00 per acre on 930,000 acres in Alberta and 660,000 acres in Saskatchewan, formerly held under reservation at a nominal fee.

Sales of land amounted to \$2.8 million, about the same as in the previous year, and included 25,629 acres of farm land sold at an average price of \$7.60 per acre. Contracts pertaining to 9,720 acres of land sold in prior years were cancelled.

The appeal of your Company and Imperial Oil Limited as lessee, heard in January 1953, in the case of Anton Turta involving title to the petroleum underlying 160 acres of land in Alberta, was dismissed by the Supreme Court of Alberta on May 22, 1953. An appeal from that decision was argued recently in the Supreme Court of Canada. Judgment was reserved.

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Balance Sheet

Total assets at the end of the year amounted to \$1,963 million, an increase of \$45 million.

The increase in property investment was \$78 million. Capital expenditure for rolling stock amounted to \$71 million, of which \$45 million was for freight train cars, \$10 million for passenger train cars and \$15 million for diesel-electric locomotives.

Capital stock of Canadian Pacific Air Lines in the amount of \$1 million and capital stock of Canadian Pacific Transport Company in the amount of \$600,000 were acquired during the year.

Working capital, at \$91 million, was down \$26 million.

Finance

On April 1, The Royal Trust Company, as Trustee, entered into an agreement whereby \$25 million principal amount of Equipment Trust Certificates was issued, guaranteed as to principal and interest by your Company. This issue, designated as Series "L", maturing in equal semi-annual instalments from October 1, 1953, to April 1, 1963, inclusive, is payable in Canadian currency, and bears interest at 4% per annum. Under this arrangement, equipment constructed or to be constructed at an estimated cost of \$31.3 million in Canadian funds is leased to your Company at a rental equal to the instalments of principal of and interest on the Equipment Trust Certificates.

During the year serial equipment obligations amounting to \$11.2 million were discharged; \$122,000 Convertible Twenty Year 3½% Collateral Trust Bonds and \$38,000 Convertible Fifteen Year 3½% Collateral Trust Bonds were converted into 5,982 shares of Ordinary Capital Stock; and Consolidated Debenture Stock in the amount of £1,810 was purchased and retired.

The foregoing transactions resulted in a net increase in funded debt of \$13.6 million; a decrease in the amounts of Consolidated Debenture Stock pledged as collateral and outstanding in the hands of the public of \$192,000 and \$8,809 respectively; and an increase of 5,982 shares of Ordinary Capital Stock outstanding in the hands of the public.

As of January 2, 1954, Guaranty Trust Company of New York, as Trustee, entered into an agreement whereby \$25,020,000 principal amount of Equipment Trust Certificates was issued, guaranteed as to principal and interest by your Company. This issue, designated as Series "M", maturing in equal annual instalments from January 2, 1955, to January 2, 1969, inclusive, is payable in United States currency, and bears interest at 3¼% per annum. Under this arrangement, equipment to be constructed at an estimated cost of \$31.3 million in Canadian funds is leased to your Company at a rental equal to the instalments of principal of and interest on the Equipment Trust Certificates.

Pensions

Pension expense amounted to \$16.3 million. This comprised the portion of current pensions paid by your Company, contributions of \$6.3 million to the Pension Trust Fund, and levies in respect of employees covered by the United States Railroad Retirement Act.

During the year, 1,593 pensions were granted and 666 pensions were terminated by death and other causes. The resultant rise of 927 in the number of persons on the pension payroll is in line with increases which have occurred in recent years. The total number at the end of 1953 was 13,576.

Wage Negotiations

Negotiations concerning wage matters and working conditions were carried on with all the major organizations representing employees in railway service in Canada.

The five-day week for yardmasters, yard foremen, yardmen, and

switchtenders became effective October 1, together with an increase in wage rates to compensate for the reduced working hours. At the end of the year, certain rules changes, which were the subject of further negotiation, remained to be settled.

Locomotive engineers on the Eastern Region signed a new agreement which provided for a five-day work week in yard service effective December 1. Negotiations with locomotive engineers on the Prairie and Pacific Regions and with firemen and hostlers on all Regions had not been concluded at the end of the year.

The non-operating employees, other than railroad telegraphers, submitted a joint request calling for benefits which included longer vacations, pay for statutory holidays not worked and for absence due to sickness, and penalty pay for work on Sundays. The railroad telegraphers served notices requesting similar benefits, with the addition of wage increases equivalent to 4% of the total average monthly payroll. Negotiations had not been concluded at the end of the year in respect of these requests.

Employee Safety

The programme to educate employees to become more safety conscious, the steps taken to eliminate hazards, and the provision of safeguards against injuries have met with gratifying results. There has been a sustained and striking improvement in the safety record during the post-war period. Ranking injuries, which are those involving loss of time of more than three days, fell from 19.1 per million man-hours in 1946 to 8.4 in 1953, a decrease of 56%.

Steamships

Early in the year, your passenger liner "Empress of Canada" was destroyed by fire while undergoing overhaul at Liverpool. Replacement by purchase and refitting of the 19,665 ton vessel "De Grasse", renamed "Empress of Australia", enabled your Company to provide, without interruption, for the heavy Coronation year traffic.

The keel of your new 22,500 ton passenger-cargo liner, ordered in 1952, was laid on September 30 at Glasgow, Scotland. The vessel is scheduled to be commissioned in the spring of 1956.

Your vessel "Beaverbrae" continued in immigrant service during the year, and brought to this country a total of 6,551 new Canadians. Application has been made to the Government of Canada for permission to sell this ship.

Air Lines

Your Air Lines had a net profit of \$366,000, as compared with \$364,000 in 1952. Net income for the year had the benefit of an income tax recovery of \$525,000 arising from the loss carry-back provision.

Both domestic and overseas operations showed increases in gross revenues. In the case of domestic services, the increase was chiefly the result of greater traffic volume. The increase in overseas revenues was brought about principally by route expansion and an increase in the number of flights. Revenue from the Korean airlift service was down. There were continuing heavy costs incidental to new route development and the familiarization of flight crews with new aircraft types.

The expansion of operations in the international field continued with the inauguration in October of service from Vancouver to Mexico City and Lima, Peru, which brought to more than 20,000 the total of your overseas route miles. Tourist fares and extra flights were introduced on the popular Vancouver to Honolulu route. The service between Vancouver and Australasia was increased from fortnightly to weekly.

There were several changes in domestic operations resulting in increased and extended services to such newly developing areas as Lynn Lake, Beaverlodge and Kitimat.

Conversion to larger aircraft was carried out on the North Pacific, Vancouver to Fairbanks and Whitehorse, and Montreal to Seven

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Islands routes. This was part of a continuing programme, which together with a higher occupancy ratio, is resulting in an increasing number of revenue passengers per revenue plane mile.

The application made in 1952 to the Air Transport Board for a licence to operate a scheduled commercial air cargo service between Montreal and Vancouver was reviewed by the Committee of the Privy Council for Canada and rejected on November 10, 1953.

An order has been placed for three Mark II Comet jet aircraft to be delivered in August, September and October 1954, and an option is held on the purchase of a fourth.

United States Subsidiaries

Income amounting to \$308,000 was received in respect of your holdings of General Mortgage Income Bonds and Common Stock of the Minneapolis, St. Paul and Sault Ste. Marie Railroad Company. Of this amount \$131,000 represented interest and \$177,000 dividends. The net income of that company in 1953, after provision for fixed and contingent charges, amounted to \$505,000, a decrease of \$536,000.

Income totalling \$376,000 was received in respect of your holdings of First Mortgage Income Bonds and Common Stock of the Duluth, South Shore and Atlantic Railroad Company. Interest amounted to \$170,000 and dividends to \$206,000. The net income of the South Shore in 1953, after provision for fixed and contingent charges, amounted to \$112,000, compared with \$370,000 in the previous year.

Interest amounting to \$320,000 was accrued in respect of bonds to be received by your Company under the plan of reorganization of the Wisconsin Central Railway Company which was confirmed by the Bankruptcy Court on October 1. The Interstate Commerce Commission has authorized a new company, the Wisconsin Central Railroad Company, to acquire the properties of the old company and to issue the securities provided for in the plan. Application has been made on behalf of your Company to that Commission for authority to acquire working control through stock ownership.

Rates

A 9% general increase in freight rates arising directly as a result of the settlement of the wage dispute in December 1952 became effective on January 1, 1953, by order of the Board of Transport Commissioners. This order also cancelled the expiration date of August 31, 1953, to which the prior general increase of 17% had been subject.

Meantime the Board had before it an application for an interim general increase of 7% and a request that the Board establish for Canadian Pacific a net investment rate base and find that 6½%, under present conditions, would be a fair return on that base. This branch of the application was accompanied by a request for an additional increase of 9% in freight rates, which was calculated to provide your Company a 5% return on its net railway investment. Hearings on this application were resumed in January and concluded early in February. On March 6, the Board authorized a general increase of 7%, effective March 16, and reserved judgment as to the balance of the application. The 7% judgment, appealed by the eight provinces appearing in the proceedings, was upheld by the Governor General in Council.

Pursuant to the request of the Board for supplementary evidence and argument in connection with the rate base-rate of return portion of the application, a further hearing was held in October. Judgment was rendered on this branch of the application on February 15, 1954, determining the net railway investment of your Company as at December 31, 1952, at the sum of \$1,175,791,000, but dismissing the application in all other respects. Application has been made for leave to appeal to the Supreme Court of Canada.

In its judgment of December 12, 1952, relative to the equalization of freight rates, the Board had ordered the railways to publish and make effective from January 1, 1954, an equalized uniform scale of mileage class rates. Regional hearings were conducted during the year to allow interested parties to show cause why these rates should not go into effect on the date mentioned. Following these hearings, the Board, on October 9, suspended application of its proposed scale until January 1, 1955, and, as an interim measure of equalization, ordered, effective November 15, a reduction of 5% in class rates within Western Canada and authorized an increase in class rates within Eastern Canada up to a maximum of 10%. A number of different scales of mileage class rates were submitted to the Board. Final hearings in respect of these were concluded in January 1954.

Also in its December 1952 judgment, the Board had announced its intention, in preparing an equalized scale for domestic grain mileage rates within Western Canada, not to apply the "hold-down" by which these rates both eastbound and westbound in the direct line of transit may not exceed the level of the Crowsnest Pass rates. Subsequently, the Board heard argument of interested parties as to its authority to remove the hold-down, and on October 19 issued an opinion confirming that such action would be within its jurisdiction.

Increases in various express rates were put into effect during the year.

Telegraph message rates for wholly Canadian traffic were increased 10% effective February 1.

Railway mail rates were increased 9% effective January 1, and 7% effective April 1.

Services

As a further step of importance in the modernization of your railway services, a total of 73 diesel-electric units were acquired. With these new units, the conversion of all services from steam to diesel-electric motive power on the Kootenay and Kettle Valley Divisions was completed, and the use of diesel power was instituted for passenger services through this territory between Medicine Hat and Vancouver.

During the year, 4,871 freight cars were placed in service, including 1,160 box cars and 50 conductors' vans constructed at Angus Shops. This brought to more than 26,000 the total of new freight cars added since the beginning of 1947. There was a concurrent increase of 20% in the aggregate freight carrying capacity of all cars in service.

There was a substantial improvement in passenger train services as a result of the acquisition during the year of 130 new units of equipment. Of these 40 were modern light-weight suburban coaches introduced on commuter runs, 40 were baggage and express cars replacing obsolete wooden equipment and 50 were express refrigerator cars.

A highlight of the year was the introduction and enthusiastic reception by the public of the operation of "Dayliner" passenger services with four new self-propelled air-conditioned rail diesel cars. Two of these units operating in Toronto-Detroit service and one between North Bay and Angliers, on daily return schedules, have extended and replaced services formerly operated with steam locomotives. The fourth unit provides additional service between Montreal and Mont Laurier.

After an extended investigation and study of passenger equipment in service elsewhere on the continent, a decision was reached to order from the Budd Company a total of 173 stainless-steel cars for your transcontinental passenger service. This equipment, featuring 36 scenic-dome cars, will provide for fifteen complete trains.

As a part of the continuing effort to improve the safety and effi-

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ciency of your railway operations, automatic block signal systems were extended by 183.5 miles during 1953. This brought to 2,867.5 the total miles of your road so equipped.

A total of 29 miles of industrial track was laid to serve 160 of the 740 manufacturing, warehousing and distributing businesses which located on or adjacent to the lines of your railway in the year.

Your Company joined with Canadian National Railways in two new communication undertakings. In one, circuits and equipment are leased to the Department of Transport for the operation across Canada of a weather map facsimile service. In the other, microwave radio relay systems are being constructed, which will provide television network services between Toronto, London and Windsor and between Montreal and Quebec. The microwave systems can be expanded to provide general telegraph and telephone facilities as the need develops.

Capital Appropriations

In anticipation of your confirmation, capital appropriations amounting to \$28.2 million, in addition to those approved at the last Annual Meeting, were authorized by your Directors during the year. These included \$16.5 million for your new ocean passenger-cargo liner, which amount is being provided from the Steamship Replacement Fund, \$3.7 million for purchase of the present "Empress of Australia", and an amount of \$1 million towards the cost of the new train ferry being constructed for the Vancouver-Nanaimo service.

Your approval will be requested also for capital appropriations for the year 1954 amounting to \$75 million, as follows:

Additions and betterments to stations, freight sheds and motive power facilities	\$2,436,900
Additions and betterments to wharves and docks	1,386,500
Replacement and enlargement of structures in permanent form....	1,185,520
Tie plates, rail anchors and miscellaneous roadway betterments	1,082,241
Replacement of rail in main line and branch line tracks with heavier rail	517,640
Installation of automatic signals	1,210,023
Additional terminal and sidetrack accommodation	723,016
Additions and betterments to shop machinery	154,876
New rolling stock	60,044,832
Additions and betterments to rolling stock	492,989
Extension to Windsor Station offices	831,300
Coastal steamships	3,090,938
Additions and betterments to hotels	243,408
Additions and betterments to communication facilities	1,496,665
Additions and betterments to miscellaneous properties	95,080

The appropriations for new rolling stock makes provision for 44 diesel-electric units, 2,840 freight train cars, 108 passenger train cars, 1 self-propelled rail diesel passenger car and 129 work units. Included in this appropriation is an amount of \$21.9 million for 83 new stainless-steel passenger train cars, part of the order for 173 such cars placed with the Budd Company. The remainder of the order is to be delivered in 1955.

The appropriation for coastal steamships provides an amount of \$3 million representing the balance of the cost of the new train ferry.

Employees, Officers and Patrons

Your Directors desire to express sincere thanks to employees and officers for the high quality of their services and to shippers and the travelling public for their patronage throughout the year.

For the Directors,
W. A. Mather,
President.

Montreal, March 8, 1954.

Canadian Pacific Railway Company • General Balance Sheet, December 31, 1953

ASSETS		LIABILITIES	
Property Investment:		Capital Stock:	
Railway, Rolling Stock and Inland Steamships	\$1,166,086,931	Ordinary Stock	\$345,174,925
Improvements on Leased Property	136,259,059	Preference Stock—4% Non-cumulative	137,256,921
Stocks and Bonds—Leased Railway Companies	133,908,438		\$ 482,431,846
Ocean and Coastal Steamships	64,053,331	Perpetual 4% Consolidated Debenture Stock	\$390,073,188
Hotel, Communication and Miscellaneous Properties	109,694,018	Less: Pledged as collateral to bonds	97,524,300
	\$1,610,001,777		292,548,888
Other Investments:		Funded Debt	126,114,000
Stocks and Bonds—Controlled Companies	\$ 74,100,434	Current Liabilities:	
Miscellaneous Investments	46,108,411	Pay Rolls	\$ 9,248,974
Advances to Controlled and Other Companies	12,576,018	Audited Vouchers	14,576,903
Mortgages Collectible and Advances to Settlers	1,020,458	Net Traffic Balances	2,961,331
Deferred Payments on Lands and Townsites	5,192,014	Miscellaneous Accounts Payable	9,388,544
Unsold Lands and Other Properties	8,182,599	Accrued Fixed Charges	1,048,738
Insurance Fund	13,188,540	Unmatured Dividends Declared	11,906,439
Steamship Replacement Fund	19,397,859	Other Current Liabilities	26,519,796
	179,766,333		75,850,745
Current Assets:		Deferred Liabilities	4,023,308
Material and Supplies	\$ 54,882,198	Reserves and Unadjusted Credits:	
Agents' and Conductors' Balances	16,951,632	Depreciation Reserves	\$553,186,400
Miscellaneous Accounts Receivable	22,701,565	Investment Reserves	1,181,330
Government of Canada Securities	32,610,975	Insurance Reserve	13,188,540
Cash	39,298,153	Contingent Reserves	4,118,819
	166,444,523	Unadjusted Credits	4,982,514
			576,657,603
Unadjusted Debits:		Premium on Capital and Debenture Stock	37,274,338
Insurance Prepaid	\$ 120,958	Land Surplus	84,601,387
Unamortized Discount on Bonds	3,289,262	Profit and Loss Balance	283,294,249
Other Unadjusted Debits	3,173,511		\$1,962,796,364
	6,583,731		
	<u>\$1,962,796,364</u>		

ERIC A. LESLIE,
Vice-President and Comptroller

TO THE SHAREHOLDERS, CANADIAN PACIFIC RAILWAY COMPANY:

We have examined the above General Balance Sheet of the Canadian Pacific Railway Company as at December 31, 1953, and the related financial statements, and have obtained all the information and explanations we have required. Our examination included such tests of accounting records and other supporting evidence and such other procedures as we considered necessary in the circumstances.

In our opinion the General Balance Sheet and related financial statements are properly drawn up so as to present fairly the financial position of the Canadian Pacific Railway Company at December 31, 1953, and the results of its operations for the year then ended, according to the best of our information and the explanations given to us and as shown by the books of the Company.

Montreal, March 5, 1954

PRICE WATERHOUSE & CO.
Chartered Accountants

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For high standards of performance



you can rely on EDISON

DEPENDABLE POWER has always been a major characteristic of EDISON batteries in meeting today's heavy passenger-train demands for air-conditioning, car-lighting and growing electrical service needs.

ELECTRICALLY FOOLPROOF, EDISON batteries can safely be maintained in a high state of charge thus reducing the need for yard charging. They have no prescribed discharge limits thus increasing the effective operating reserve, especially when self-regulating inversion equipment is employed.

MOST ECONOMICAL, TOO—as the operating records of America's both large and small roads bear out. For example, on many roads, EDISON

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There are more reasons why EDISON batteries enjoy railroad preference—all-steel cell container and plate design provides rugged stamina for typical railroad operations . . . this same EDISON steel cell construction reduces weight—up to 2000 pounds per car . . . and EDISON batteries successfully meet temperature extremes; withstand the overcharging and overdischarging often incidental to railway car service. Before selecting your next passenger car battery, be sure you have the latest, proven facts on EDISON battery operation . . . write today for Bulletin SB 3208 and the name of your nearest Edison Field Engineer. Edison Storage Battery Division of Thomas A. Edison, Incorporated, West Orange, New Jersey.



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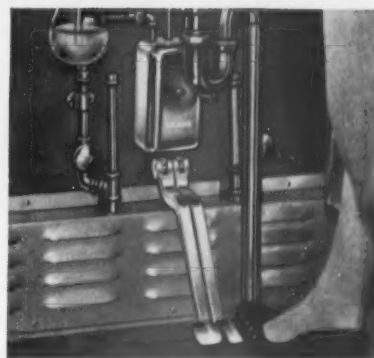


...Aboard New Budd-Built Cars for the Santa Fe Chief and El Capitan

Again Crane meets the need of the traveling public with plumbing fixtures and fittings that provide the latest in styling, sanitation and ease of operation.

But Crane plumbing is not built solely to please the passenger. To the railroad, Crane brings consistent fine quality, plus simplified maintenance that reduces upkeep costs to a minimum.

Here you see the ladies' restroom in a typical new Budd-built Santa Fe coach. All plumbing fixtures, including the convenient dental lavatory, are Crane—of glistening vitreous china, so easy to clean and keep clean. Fittings are simple and rugged . . . heavily chromium plated. For years to come this Crane plumbing installation will retain its beauty and sanitation.



Milady touches her toe to the pedal-operated supply—for hot, cold, or tempered water. Modern travelers appreciate this extra consideration of their comfort and safety.

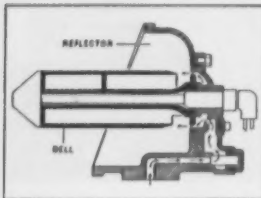
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For safety's sake, more and more Diesel-Electrics are being equipped with the new Hancock Type 4700 Locomotive Air Whistle. It sounds *exactly* like the old familiar steam whistle, yet air consumption is so low, the efficiency of the air-

brake operation is in no way affected.

The Hancock Locomotive Air Whistle has no moving parts—no adjustment possible or necessary. It always sounds the same pleasing 3-note chord. Carrying power is excellent. The bowl-like reflector stimulates air motion—amplifies the sound; swirls it out in all directions. The whistle can be heard clearly more than two miles away, yet is not objectionable to the human ear close by, nor injurious to the hearing of engine crews. Furthermore, those who live within the range of the Hancock Air Whistle prefer the call of the time-honored steam whistle it duplicates so precisely.

The new Hancock Type 4700 Locomotive Air Whistle culminates more than 50 years of experience in manufacturing locomotive whistles. Learn all about it. Write for complete information today.



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THE BALTIMORE AND OHIO RAILROAD CO.

127th Annual Report—Year 1953

Income:	Year 1953	Increase over 1952
From transportation of freight, passengers, mail, express, etc.	\$460,848,986	+ \$18,172,312
From other sources—interest, dividends, rents, etc.	10,386,567	+ 911,045
Total Income	\$471,235,553	+ \$19,083,357

Expenditures:

Payrolls, supplies, services, taxes	\$401,143,949	+ \$14,782,525
Interest, rents and services	42,050,671	+ 3,576,727
Total Expenditures	\$443,202,620	+ \$18,359,252

Net Income:

For improvements, sinking funds and other purposes	\$ 28,032,933	+ \$ 724,105
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For the fourth consecutive year the full dividend of \$4.00 per share was paid on the preferred stock. A dividend of \$1.00 per share was paid on the common stock.

Total tax accruals of \$35,077,800 for 1953 exceeded net income by more than \$7,000,000.

\$35,488,862 was spent during 1953 for improvements and new equipment.

H. E. SIMPSON, President

ROLLING STOCK

40 Ton Steel Sheathed Box Cars
50 Ton All Steel Gondolas
70 Ton All Steel Gondolas
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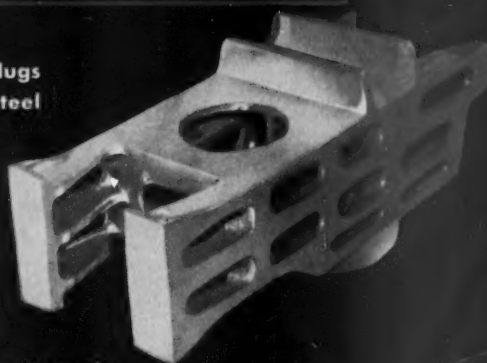
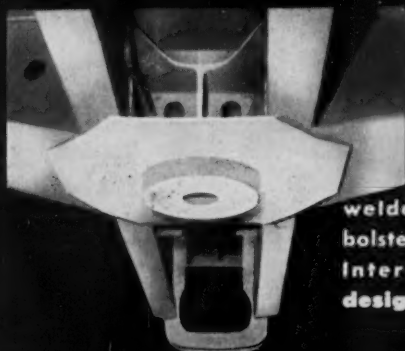
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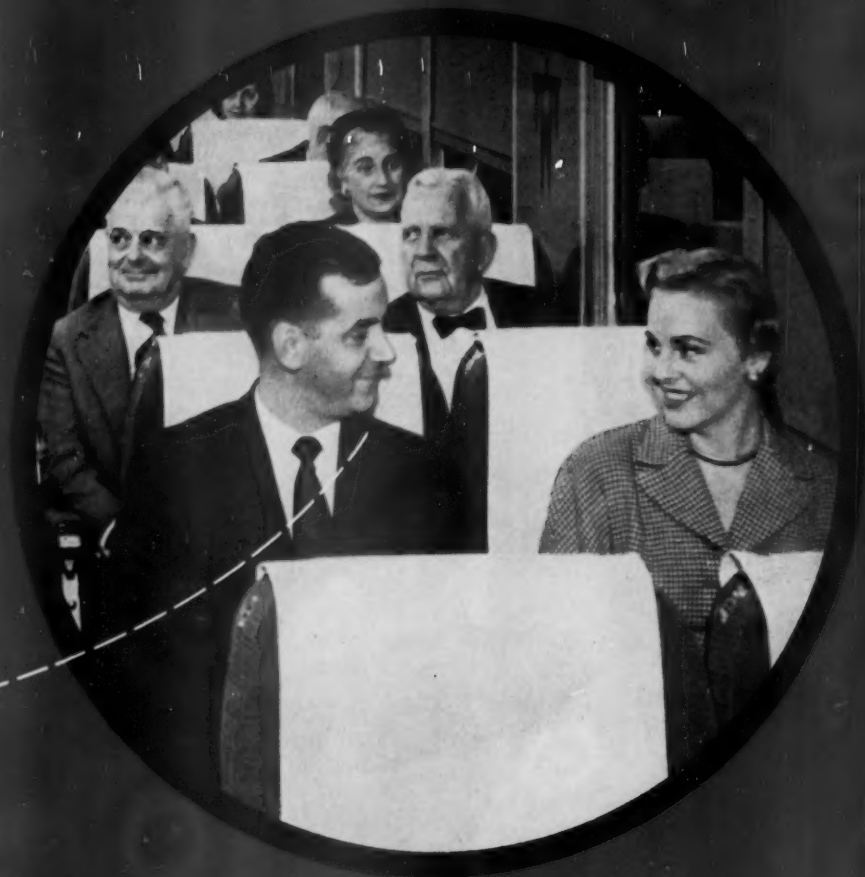
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*Unizone and Moduzone provide full comfort, yet save 90% in Coach-Yard Labor—reduce Store Parts by 80-70%.

Soon to be serving the Santa Fe, these fine Vapor Unizone and Moduzone cars here are nearing completion. Photo, The Budd Co.

Dome Cars, too, with their highly variable heating demands, have the same simple basic elements used in Vapor Unizone Systems for Coaches and in Moduzone Systems for Room Cars. Upstairs, downstairs—in every part of every car—uniform temperatures are maintained automatically, yet 15 minutes every two years is average for at-the-car servicing. Vapor railroad experience meets railroad needs—completely... economically.

Canadian National selected Vapor Moduzone for passenger comfort on these modern new room cars. Photo courtesy Pullman-Standard.

New Union Pacific cars have Vapor Unizone and Moduzone for the complete comfort of passengers. Photo, American Car & Foundry.



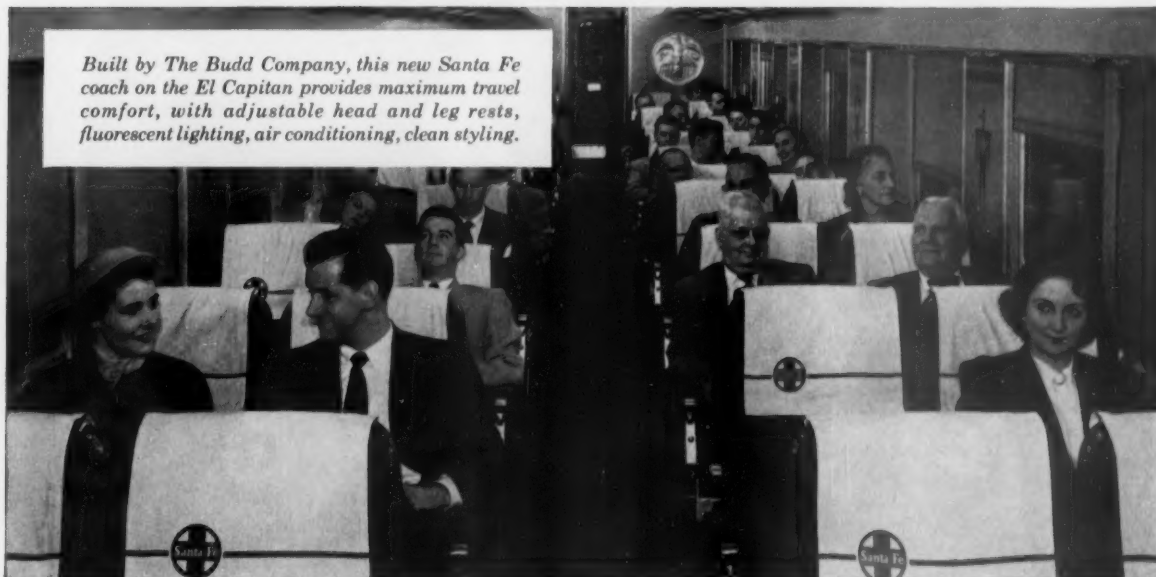
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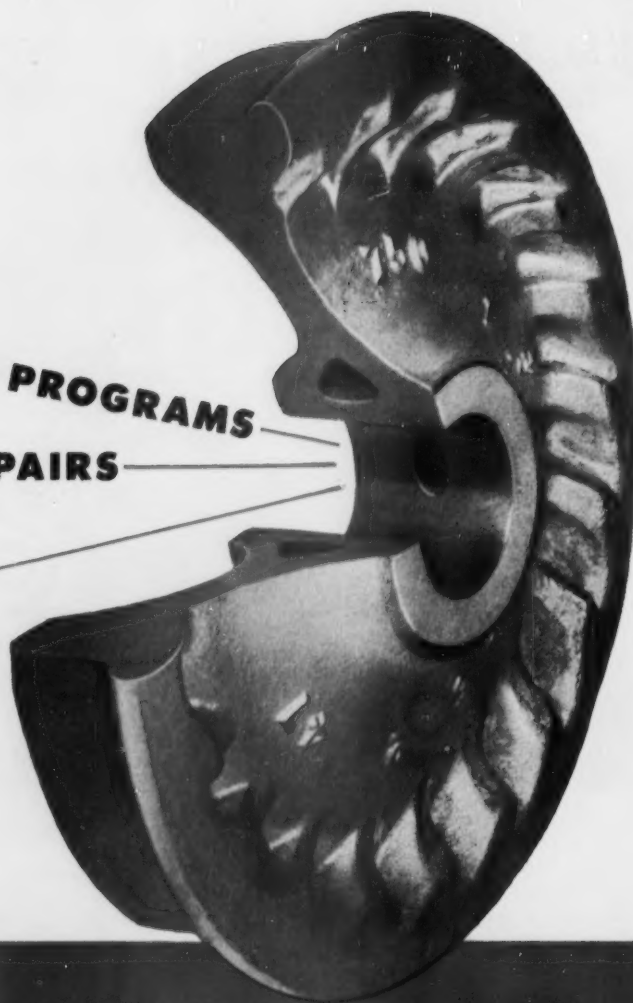
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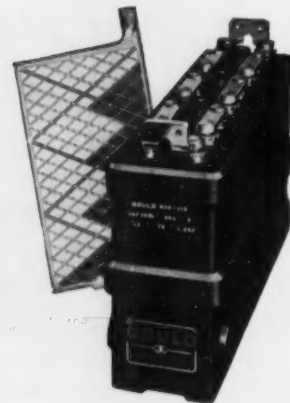
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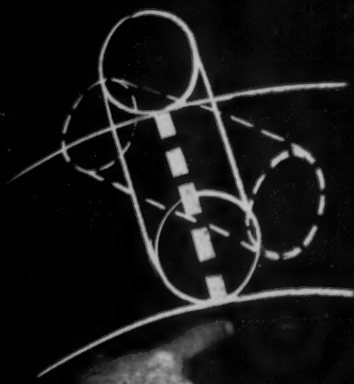
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The taper makes TIMKEN® the only journal bearing that delivers what you expect when you buy a roller bearing

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CONTACT



ROLLER bearings are used on railroad journals for two primary reasons—to end the hot box problem and cut operating and maintenance costs to a minimum. The Timken® tapered roller bearing is the *one* bearing you can be sure of to do this. It's the taper! Here's why:

1) *Positive roller alignment.* The taper holds ends of rollers snug against the rib, where wide area contact keeps rollers properly aligned. There's no skewing of rollers to upset the full line contact and shorten the life of the bearing. The load is always carried over the *full* length of the rollers.

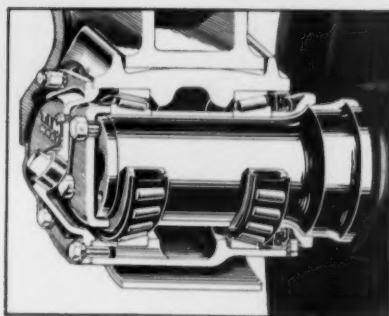
2) *No lateral movement within the bearing.* In straight roller bearings, lateral movement causes scuffing of rollers and races, especially on freight cars when they're dumped or bumped while standing still.

Lateral movement pumps lubricant through the seal and out of the journal box, draws dirt and water in.

Lateral movement also makes it necessary to use extra thrust bearings, blocks or other devices to take thrust loads. These thrust devices are not completely effective, are hard to lubricate with grease, and increase maintenance.

The taper in Timken bearings prevents lateral movement, enables them to take the thrust. There's no scuffing, no pumping action. This helps end the hot box problem, means less maintenance, less lubricant and longer bearing life.

Get what you pay for when you switch to roller bearings to end the hot box problem and cut operating and maintenance costs to a minimum. Get Timken tapered roller bearings. The Timken Roller Bearing Company, Canton 6, Ohio. Cable address: "TIMROSCO".



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